

UNDERSTANDING TOURISTS IN FINLAND: EXPLORING ONLINE CUSTOMER REVIEWS ON FINNISH HOTELS

A big data study that analyzes user-generated reviews and provides Finnish hotels with tools to manage electronic word-of-mouth

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Abstract

The purpose of this study was to shed light on tourists' perceptions of Finnish hotels and how hotels manage their reputation on review sites such as TripAdvisor. Online reviewing has become significant phenomenon, which has great influence on both customers and hotels. For prospective hotel guests, opinions of other people affect directly to the booking intentions of hotels. Hotels on the other hand, can gain significant benefits from positive eWOM, while negative reviews can seriously damage the reputation of hotels.

Also, the traditional hospitality industry has faced some challenges in recent years as new types of accommodation options have increasingly claimed interest from tourists. Take Airbnb for example, which enables people to lease or rent short-term lodging. This means that hotels need to be able to adapt and renew their way of doing things. One opportunity surely lies in the management and utilization of online reviews.

The research thus focuses on identifying the most demanding hotel guests in Finland, and further understanding more about the rating behavior of different tourists. In addition, the role of hotel management is examined to the extent of replying to online reviews. The analysis of online customer reviews is done by grouping all samples into nationalities. Therefore, it is possible to compare cultural differences and see how user demographics affect one's reviewing. MySQL database client is used to analyze the data, while some additional statistical tests were carried out on SPSS.

There were several key findings regarding the study. Most importantly, though, it was discovered that Finnish, Swedish and Germans are the most demanding hotel guests, while Russian and English native speaking tourists give superior reviews. Additionally, clear differences were found on the rating habits between genders, whereas age also seemed have influence on reviewing in general. Moreover, the analysis confirmed the suggestions of other researches that hotels rarely do have a strategic approach towards addressing online customer reviews. Thus, a framework is presented to provide hotel management with better tools to take full use of user-generated content.

Keywords eWOM, big data, online reviews, customer ratings, hospitality management

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Tiivistelmä

Tämän tutkimuksen tarkoituksena on valottaa turistien käsityksiä ja arvoja suomalaisiin hotelleihin liittyen sekä toisaalta selvittää miten hotellit hoitavat ulkoista mainettaan TripAdvisorin tyyppisillä arvointi-sivustoilla. Online-arvioinnista on tullut merkittävä ilmiö, jolla on vaikutusta niin asiakkaisiin kuin hotelleihin. Mahdollisille hotellien asiakkaille muiden kuluttajien mielipiteet toimivat tärkeänä viitekehystenä majoitusvaihtoehtoja valittaessa. Toisaalta hotellit voivat saavuttaa huomattavia hyötyjä positiivisista arvioista, kun taas negatiiviset mielipiteet saattavat pahimmillaan tahrata yritysten maineen.

Lisäksi perinteinen hotelli-ala on viime vuosina kokenut uudenlaisia haasteita vaihtoehtoisten majoituspalveluiden astuttua markkinoille. Esimerkiksi Airbnb mahdollistaa kuluttajien välisen liiketoiminnan ja kiinteistöjen vuokraamisen edelleen, mikä on kehittynyt varteenotettavaksi kilpailijaksi hotelleille. Pysyäkseen jatkuvasti muuttuvien markkinoiden tahdissa hotellien on kyettävä uudistumaan ja muokkaamaan aiempia toimintamallejaan. Yhteeksi mahdollisuudeksi voidaan laskea online-arvioiden strateginen johtaminen sekä hyödyntäminen liiketoiminnallisten päämäärien saavuttamisessa.

Tarkemmin sanottuna tämän tutkimuksen keskeisenä päämääränä oli pyrkiä selvittämään vaativimpia hotelli-asiakasryhmiä Suomessa sekä ymmärtää paremmin erilaisten turistien arvointikäyttäytymistä. Lisäksi hotellijohdon roolia tutkittiin online-arvioihin vastaamisen kannalta. Varsinainen analyysi tehtiin ryhmittelemällä asiakas-arviot kansallisuuksien mukaisesti. Tämän mahdollisti kulttuurillisten erojen vertailun sekä muiden demografisten tekijöiden vaikutuksen selvittämisen hotelli-asiakkaiden arvioihin. Datan analysoinnissa hyödynnettiin pääosin MySQL-tietokantaohjelmaa. Lisäksi SPSS-tilastotyökalulla suoritettiin tuloksia täydentäviä testejä.

Merkittäviä tutkimustuloksia oli monia. Tärkeimpinä voidaan kuitenkin pitää suomalaisten, ruotsalaisten ja saksalaisten turistien roolia vaativimpina turistiryhminä kun taas venäläiset sekä englanninkieliset kansallisuudet antoivat parhaimpia arvioita hotelleista. Lisäksi sukupuolten välisistä arvointitavoista löydettiin selviä eroavaisuuksia. Myös iällä todettiin olevan merkittävä vaikutus arvointikäyttäytymiseen. Analyysi vahvisti myös aiempaa käsitystä hotellien puutteellisesta kyvystä hallinnoida online-arviointeja strategisesti. Tämä tutkimus tarjoaa käytännönläheisen työkalun asiakas-arvointien hyödyntämiseen hotellien toiminnassa.

Avainsanat online-arvointi, big data, hotellien johtaminen

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1 INTRODUCTION

1.1 Motivation

Electronic Word-of-Mouth (eWOM) has risen as an important source of information for consumers to address their consumption-related experiences and evaluations (O'Connor, 2010; Vermuelen & Seegers, 2009). These reviews posted on sites such as TripAdvisor, a travel website company providing reviews of travel-related content, in turn can have significant effect on the purchasing behavior of other consumers that visit these forums (Sparks & Browning, 2011).

Contrary to common belief, companies are yet to understand the importance of such reviewing sites and often fail to capitalize this user-generated information to their advantage in more ways than one (O'Connor, 2010). In particular, big data analytics approaches in hospitality industry are yet to be utilized to their fullest potential regardless of myriad information sources available through Web 2.0 (Xiang et al., 2015). Also, hotel businesses seem to be rarely involving themselves in co-creation and interaction with their customers on travel-related forums such as TripAdvisor (O'Connor, 2010; Tuominen, 2011).

Therefore, understanding the importance of big data analytics and their applications business-related decisions as well as gaining valuable customer insight can help hotel managers to improve their service and operations quality, but also direct their marketing efforts more efficiently to specific customer groups. As hotels deploy these approaches as a part of their operations, they are hopefully able to provide customers with better experiences. This for one has direct impact on reviews on user-generated sites that many times determine which hotels are booked and which ones are not, as discussed above.

Even though “big data” is still to this date not very well defined, Chen et al. (2012) describes the term as “data sets and analytical techniques in applications that are so large and complex that they require advanced and unique data storage, management, analysis, and visualization technologies”. Some research papers (Salehan & Kim, 2016; Mariani et al., 2016) define their work as big data with 35 000 and 33 597 reviews, respectively. Accordingly, this research can also be categorized as big data analysis since the analyzed TripAdvisor data set covers whole of Finland and has multiple tables up to 57 000 reviews.

As for personal motivations regarding the study, analytical skills are becoming more and more essential in today's business climate. According to Chen et al. (2012) there will be a great shortage of data-savvy professionals with the ability to analyze and make sense of big data in becoming

years. These projections alone motivate me to produce meaningful results that also contribute to my professional competence as a whole.

1.2 Research objectives

The aim of this study is to bridge the gap between existing research of utilization of big data and the hotel industry. In addition, it pursues to understand comprehensively differences in customer perceptions among tourists in Finland.

Expected results will hopefully provide hotel managers with better insight into their customers and how they perceive value. The study also sheds light into hotel guests' motivation to give feedback and write reviews when comparing overall satisfaction of the visit. Additionally, the study investigates whether hotels are managing their reputation actively and to which reviews they tend to answer.

Consequently, all of the above mentioned objectives provide hotels with tools to further improve their services quality, target specific customer groups and also spot critical details that affect satisfaction and tendency to give feedback about hotels.

1.3 Research questions

This topic has many interesting avenues for further research, but for the sake of clarity and conciseness I have decided to focus on the customer perspective, and compare the different demographics of hotel guests to overall satisfaction. The main research question thus, is as follows:

1. Who are the most demanding hotel guests when comparing the rating of different tourists in Finland?

To give more in-depth understanding about the rating and guest satisfaction and also to support the main research question, sub-research questions consist of the following:

2. What is hotel guests' tendency to write reviews at different satisfaction levels for different tourists?
3. Which kind of reviews hotels tend to reply?

The second sub-research question aims to tackle the issue of hotels' failing to manage their reputation in user-generated sites such as TripAdvisor. According to earlier research (O'Connor, 2010; Tuominen, 2011), hotels are not interacting enough with their customers and thus it is also meaningful to investigate this issue in Finnish context and whether there has been development to managing customer reviews.

1.4 Structure of the thesis

The thesis starts with explaining the main and sub research questions that help to outline the problems and challenges of the study. Earlier research and aims of the study are also covered to give comprehensive idea of the desired outcomes that offer new insight on this research area.

Then, literature review discusses further this subject with other researchers work regarding online reviewing of hotels. It sheds insight on the importance of electronic word-of-mouth as well as the different preferences and rating habits of tourists. The hotel management's perspective is also discussed to examine the means to handle online reviews successfully and exploiting them to improve business performance.

Following the literature review, research design is described in order to clarify the data collection, processing and analysis part of the study. Findings are then presented and discussed on the results section. Lastly, the study's contribution to existing literature and practice along with limitations and avenues for future research are discussed.

2 LITERATURE REVIEW

2.1 Earlier research

Big data analytics approaches in the hospitality industry and -research are still lagging behind other, more analytically oriented fields such as IT industry and online retail (Chen et al., 2012; McAfee et al., 2012). In addition, little is known about the factors that affect the perceptions of service quality to different hotel guests due to limited research (Ariffin & Maghzi, 2012; Konu, 2009; O'Connor, 2010). Especially, the comparisons between demographic and personal influences have not been considered extensively in prior research of customer perceptions in the hospitality industry (Ariffin & Maghzi, 2012; Hu et al., 2009).

Earlier research, however, is more focused on hotel's perspective and performance levels in order to understand what areas (such as amenities) hotels could improve to make customers more satisfied (Cobanuglu et al., 2011). It is still important, if not even more relevant to gain broader understanding about different customer segments and their perceptions of value as each hotel guest has individual needs.

2.2 Online reviews are a significant source in understanding tourists

As already discussed earlier, online reviewing has risen in recent years as a significant phenomenon in the tourism industry. Thus, travelers are able to gain easy access to information about hotels and

travel destinations (Filieri & McLeay, 2014). Moreover, many times individual purchasing or booking decisions are based on other travelers' opinions on different forums (Noone & McGuire, 2014; Ye et al., 2009). Vermuelen and Seegers (2009) argue further that these reviews, either positive or negative, can re-shape the image of hotels.

As a consequence of these developments, important questions have been raised about the business opportunities of online reviews for hotels. Xie et al. (2014) among other researchers have acknowledged this business value of customer reviews in their studies, and the importance of developing management strategies accordingly.

In particular, quantitative and analytical approaches are becoming more and more relevant in understanding relationships between customers and business performance (Erevelles et al., 2016; Chen et al. 2012; McAfee & Brynjolfsson, 2012). This notion comes from the mere amount of data that is available for businesses to be analyzed in the shape of eWOM and exploited in order to achieve business goals (Salehan & Kim, 2016).

The growth of user-generated content has indeed been substantial in era of web 2.0, which relates to the engagement and collaboration between users on different platforms (Murugesan, 2007). This particular study concentrates on the reviews generated by TripAdvisor, which claims to be the world's largest travel site and enabler of reviews (comScore Media Metrix for TripAdvisor Sites, worldwide, July 2016). According to TripAdvisor (TripAdvisor.com, 2017) the company provides their users with access to 435 million reviews and opinions covering 6.8 million accommodations worldwide. Thus, the volume of data is enormous and the opportunities that come with it can be ever so versatile, also for companies that are reviewed on these sites.

How is the review information then significant for hotels? According to Ye et al. (2011) traveler reviews are correlated with online sales, which is a clear indicator of business performance. More closely, their study showed that ten percent increase in ratings could enhance bookings 5 percent or even more. On another study Liu et al. (2017) were examining the key determinants for hotel guest satisfaction utilizing user-generated reviews – information that can be used for marketing purposes or to improve service quality for instance.

User-generated data is often referred as big data, which can be diverse and sometimes hard for companies to understand (Xiang et al., 2015). Thus, it is meaningful to conceptualize this construct in order to grasp its multifaceted uses and meanings. Erevelles et al. (2015) distinguishes three factors behind big data that makes it unique: volume, velocity and variety. Volume relates to the

amount of data available for different purposes, velocity addresses the pace of which new data is constantly created and variety has to do with the many forms of data (Erevelles et al., 2015).

Additionally Ebner et al. (2014) see fourth dimension to big data, veracity, emphasizing the qualitative perspective and whether the data is flawed in any way. On the other hand, Lycett (2013) argues that value is significant factor of big data that refers to the usability and strategical fit involving usage of information.

As these examples point out, there are many ways of actually understanding what big data means in the context of this study. Nevertheless, at least some sort of consensus is apparent, which can be used to further comprehend the different components of user-generated information. More importantly it enables hotels in this case to see that there are so many aspects to traveler reviews and how to benefit from them. For instance the velocity of data technically means that businesses are able to analyze their performance in almost real time – for hotels online reviews enable an opportunity to do just that.

When it comes to popularity of online reviews among travelers, Gretzel and Yoo (2008) found out in their study that review sites such as TripAdvisor are substantially more preferred to actual hotel websites when finding out information about possible accommodations. This on the other hand, highlights the importance that user-generated content has on the overall planning of individual travels.

This also raises an important question about the validity of hotel reviews as basically everyone can create their own opinions anonymously. What's more, Filieri and McLeay (2014) argue that travelers might become co-marketers of hotels, and better yet use that power of influence to spread dishonest reviews. Thus, Filieri and McLeay (2014) call for information quality standards from review sites such as TripAdvisor to make sure reviews are sincere and accurate. Nevertheless, hotels should also be aware of the possibility that some reviews are false and only aimed at tarnishing company reputation.

In conclusion, one could argue further that based on this discussion there is certainly a need for actual management on these kinds of forums from hotel perspective as well. Actually, Mauri and Minazzi (2013) suggest in their study of the influence on online reviews that hotel managers should monitor their guests' reviews online as they offer significant insight into the expectations customers and targets for development. Additionally, Mauri and Minazzi (2013) stated that hotel responses on

review sites as TripAdvisor could damage the company images as it could be seen as intervening with customer interaction.

Alternatively, Xie et al. (2011) concluded that negative reviews often outweigh the positive ones, even in the case of reputable hotel. Consequently, they propose participation and replying to feedback as one feasible method of managing hotel reputation (Xie et al., 2011). On another study Tsao et al. (2015) suggested that hotels that choose to interact on review sites such as TripAdvisor should be cautious and respectful towards customers and their reviews.

2.3 The differing preferences of tourists

Over the course of above-mentioned discussion it has become obvious that tourists have different preferences and criteria when it comes to hotels and their perceived quality. As tourists have different understandings about value and quality, they also rate hotels differently.

Ariffin and Maghzi (2012) for instance found out five aspects to hotel performance that affect to the perceptions of customers: personalization, warm welcoming, special relationship, straight from the heart and comfort. These aspects represent both the physiological as well as the psychological expectations that hotel guests may have during their stay (Ariffin & Maghzi, 2012). What's more, Ariffin and Maghzi (2012) also suggested that gender and travel purpose influence the preferences and expectations of each customer; males are generally more demanding than females and holiday travelers expect more from the hotels to business travelers.

Torres and Kline (2013) also emphasized in their study that customer satisfaction does not only arise from the physical features of a hotel, but also from understanding the customers and having customer-driven approach to support this thinking. This is clearly in line with the findings of Ariffin and Maghzi (2012), where both physical and abstract dimensions are important for customer satisfaction.

Torres et al. (2014) on the other hand studied the key drivers for customer delight in a hotel experience from cross-cultural perspective and found out some interesting differences among various nationalities. For instance American guests appreciated high-quality and flexible services more than any other nationality whereas Northern-Europeans seemed to value more friendliness and problem solving skills of hotel staff (Torres et al., 2014). As this particular study also suggests, there are distinct characteristics and preferences also on a cultural level.

When it comes to customer preferences and how it is affected by loyalty towards hotels, Ramanathan and Ramanathan (2011) found out that value for money was the most significant

factor, followed by service and room attributes. Even though this study was conducted only in the UK, it can be clearly seen throughout this discussion that people have differing expectations depending on nationality or culture as well. Chen et al. (2012) share also this view by concluding in their research that culture influences significantly the perceptions of quality and brand awareness.

This leads to thinking that cultures indeed play a significant role in shaping customer perceptions. Actually, Geert Hofstede's cultural dimensions theory supports this statement and can be further used as a theoretical background for findings of this study. Next, it makes sense to take closer look at how cultures shape the values and understandings of people.

2.4 How culture influences people – Hofstede's cultural dimensions theory

Geert Hofstede's cultural dimensions theory describes the effects of culture and its values to people's behavior (Hofstede, 2001). It is widely used and accepted model in academic research to explain cultural differences and distinctions. While the purpose of this study is to primarily compare national and cultural differences in the rating behavior of Finnish hotels, the cultural dimensions theory supports the hypothesis that cultures also influence the rating behavior of tourists.

The theory consists of five cultural dimensions: power distance, individualism vs. collectivism, uncertainty avoidance, masculinity vs. femininity and long-term orientation vs. short-term orientation (Hofstede, 2001). Power distance addresses authority and distribution of power within the society and can be further expanded to the conception of inequality (Hofstede, 2001). Higher degree of power distance in the society exhibits greater approval and realization of hierarchies, while lower levels contests this notion and aims for more equal distribution of power (Hofstede, 2001).

Individualism vs. collectivism examines the degree in which people in the society consider themselves to be part of a larger group or on the other hand acting as individuals without greater extension towards collective ideologies. The underlining comprehension in individualistic culture stresses "me" over "we", whereas collective cultures place emphasis on the sense of community (Hofstede, 2001).

Uncertainty avoidance relates to the stress and uncertainty tolerance within the society (Hofstede, 2001). More closely, it aims to measure how comfortable different cultures are with novel ideas and behavioral patterns (Hofstede, 2001). Higher degrees of uncertainty avoidance lead to rarely challenge the status-quo and contentment with stability and earlier beliefs while low uncertainty avoidance highlights the opposite outlook (Hofstede, 2001).

Masculinity vs. femininity measures the society's orientation between male and female values (Hofstede, 2001). Masculinity dimension emphasizes values such as achievement and assertiveness while femininity focuses more on cooperation and modesty in societies (Hofstede, 2001). Essentially, the distinction between the two dimensions is whether there's higher emphasis towards soft values (femininity) or hard values (masculinity) (Hofstede, 2001).

Long-term orientation vs. short-term orientation indicates how societies connect the past with present and future activities (Hofstede, 2001). Long-term orientation aims for pragmatic approaches with high degree for ability to adapt (Hofstede, 2001). Short-term orientation on the other hand, places high regard on traditions and resists societal changes more than long-term orientation (Hofstede, 2001).

As far as this study is concerned, there are many nationalities that differ in their cultural dimensions, which consequently affect their behavior according to Hofstede (2001). For instance Japan, Sweden and United States that are all among the nationalities being analyzed in this study, have clear differences with each other when it comes cultural dimensions orientation (Hofstede, 2001). Thus, the cultural dimensions theory offers significant support to believe that these different nationalities would also have different value perceptions and habits of reviewing hotels. This statement is well supported by relevant research that is covered in more detail on the next chapter.

2.5 Tourists rate hotels differently for various reasons

Surely hotel guests tend to give different ratings, but there are various reasons for that. Schuckert et al. (2015) interestingly found a clear distinction between English speaking and non-English speaking travelers' rating habits, where the English speaking population has a tendency of giving higher ratings and staying in higher quality hotels compared to the non-English speakers. This then would indicate that language capabilities of hotel staff have something to do with rating of tourists.

Rhee and Yang (2015) alternatively discovered that travel purpose had effect on the tourists' rating habits, which arise from the travel-specific expectations and needs of tourists. Liu et al. (2017), in turn, highlighted that different nationalities give different ratings based on specific features of hotels. Tsao et al. (2015) accordingly argue that high-quality of services offered by hotels can significantly affect the feedback of customers and results in more positive reviews. This on the other hand demonstrates how certain aspects can influence customer satisfaction more than others.

There is still a lot of research to be done when it comes to grouping or segmenting tourists in terms of their rating habits. Overall, it can be stated that nationality, traveler profile and customer

preferences all play a part in the rating behavior of hotel guests. However, cultural and national differences are among the most significant research areas to understand the rating behavior of tourists.

As both Crotts & Ermann (2000) and Seo (2012) argue in their studies regarding cross-cultural hotel evaluations, different cultures exhibit varying expectations towards hotels that are connected with Hofstede's cultural dimensions. Thus, earlier linkage with cultural dimensions and customer rating behavior is also acknowledged by other research. To further emphasize culture's influence on the hotel evaluation process of customers, the table below lists some of the studies touching on this issue.

Study	Purpose	Nationalities/cultures involved	Findings
Dolnicar & Grün (2007)	Comparison of cross-cultural response styles	Australian and Asian	Asian respondents are more likely to give lighter feedback than Australians
Mattila (1999)	Cultural differences in service evaluations	Asian and Western	Western consumers value tangible and physical features while Asian place more importance on personalized services
Poon and Low (2005)	Measurement of satisfaction levels between cultures	Asian and Western	Satisfaction levels are higher for Western customers; Asians prioritize their satisfaction on value for money while Western appreciate safety, food and beverage
Schukert et al. (2015)	Rating behavior of different language groups	English and non-English speaking	English speaking customers have tendency of giving higher ratings and valuing hotels with better quality
Liu et al. (2017)	Language-specific drivers for customer satisfaction	European and Asian	Hotel guests speaking various languages differ greatly in how they review hotels

Hsieh and Tsai (2009)	Hotel service quality evaluations between cultures	American and Taiwanese	Nationalities in question differ substantially in their rating of hotels and expectations towards service quality
Torres et al. (2014)	Cross-cultural value drivers for customer satisfaction	North-American, North-European and South-American	Culture plays a big role in hotel guests' value perceptions
Crotts and Erdmann (2000)	The effect of national culture to evaluation of travel services	UK, Germany, Japan, Brazil and Taiwan	Cultural influences affect customers' reviewing; masculine societies tend to express dissatisfaction more
Au et al. (2014)	Online complaints of Chinese hotels	Chinese and non-Chinese	There are significant differences in expressing dissatisfaction between Chinese and non-Chinese hotel guests; Chinese tend to complain less often
Yuksel et al. (2006)	Complaining behavior between different nationalities	Turkey, the Netherlands, Britain and Israel	National differences influence the proneness to address dissatisfaction towards hotels
Tsang and Ap (2007)	Service quality perceptions between cultures	Asian and Western	Asian tourists tend to give lower ratings than Western tourists; there is a clear difference of the service expectations between the cultures

Table 1: Linkages between cultural factors and customer evaluations

2.6 Hotel management strategies to address eWOM

Next, taking a look at how hotels have tackled online reviews in the past and what strategies are suggested in the literature to further cope with eWOM will give ideas that can be also used in this study. As it has been discussed earlier, eWOM has considerable impact on consumer behavior, which is why hotel management should find ways to leverage this potential to their advantage. Still, some research actually has found out that majority of hotels don't have any kind of strategies or

plans of action to deal with online reviews (Levy et al., 2013; Vásquez, 2011; Barsky & Frame, 2009).

In recent years researchers have increasingly studied this topic, especially dealing with negative online reviews and how hotels are managing them. Both Sparks et al. (2016) and Tsao et al. (2015) agree that negative reviews can at times be over-exaggerated and without sufficient grounds, which also raises the question of addressing these views online. Interestingly, Papathanassis and Knolle (2011) have argued that negative reviews still interest other reviewers more as they get gain more traction than the positive ones. This further supports the hypothesis that hotels should be shifting their focus to manage customer complaints online as they have greater potential to influence other customers, and sometimes even taint the reputation of hotels without proper justification.

Some research, though, suggest that hotel responses to negative reviews can be counter-productive as it is intervening with customer interaction and is likely to result in reduced booking behavior (Mauri and Minazzi, 2013). However, utilizing hotel's own social media networks such as Facebook and Twitter could act as viable channels to address customer feedback (Mauri & Minazzi, 2013; Levy et al., 2013). Xie et al. (2014) though suggest a slightly more active approach, where hotel management should carefully consider to which kind of reviews to answer.

Regardless of some studies suggesting not taking action when being encountered with negative reviews, many scholars share opposite view on the usefulness of responses. Min et al. (2015) agree that management responses to negative feedback is likely to yield positive results for hotels given that way of interacting is empathetic and understanding. Lee and Cranage (2014) alternatively remark that hospitality businesses should use different response methods to negative reviews depending on the overall consensus of customers, especially when there's low support for arguments that could tarnish the company image. They introduce accommodative and defensive response methods as means to deal with these situations (Lee and Cranage, 2014).

Levy et al. (2013) on the other hand, calls for more strategic approach in respect to responding online reviews including following guidelines: 1) putting a reputation management system in place to enable organized processes 2) encouraging positive reviews from pleased customers 3) utilizing online reviews to better hotel processes and services 4) responding to reviews in a timely and personal manner. Especially the fourth suggestion is very much in line with what also Min et al. (2015) is proposing in their study in regards to hotel managements' interaction with their customers online.

Park and Allen (2013) also agree that there is a definitive need for online review strategy for hotels. However, according to Park and Allen (2013) hotels should not have the same strategy altogether, but have a tailored plan suiting for company objectives. More closely, hotels should be making a conscious decision whether to pursue problem solving approach or more strategic and engaging way of responding to customer reviews (Park & Allen, 2013). Across these suggestions, we can see that hotels should be planning their online response strategies and that the responses itself are very much situation- and company specific.

Moreover, Sparks et al. (2016) voice the same kind of implications with Min et al. (2015) and Van Noort and Willemsen (2012) when it comes to successful responses; efforts to manage customer complaints online should always include authentic communication and respect towards unsatisfied reviews. In other words, using a human-voice makes all the difference in the eyes of the consumer. Thus, it seems to be crucial to ensure that the style of response from hotels does not come off as generic and automated as it could potentially affect to the overall satisfaction and trustworthiness of the hotel (Min et al., 2015; Sparks et al., 2016).

In addition, Sparks et al. (2016) argue that timeliness of the response is another important factor in determining how customers perceive the hotel in the future, something that Min et al. (2015) also saw as a favorable course of action. Significantly, Sparks et al. (2016) as many others before (Phillips et al., 2015; Tsao et al., 2015; Levy et al., 2013; Van Noort & Willemsen, 2012) think that responding to negative word-of-mouth is much more recommended way to go than doing nothing.

When it comes to credibility of responses and whether someone with more authority should personally address the issues raised in online reviewing sites, Sparks et al. (2016) believe that to be unnecessary. However, Van Noort and Willemsen (2012) and Xie et al. (2011) propose that hotels can effectively manage consumer feedback by appointing representatives to solve the concerns of hotel guests. This, in turn would both contribute to the personalization factor as well as the strategic management of online reviews, which is also in accordance with the findings of Sparks et al. (2016).

As this discussion above has revealed, there are many proposed ways of handling eWOM and essentially negative customer feedback. Throughout the aforementioned suggestions though, it seemingly apparent that problems raised by the customers online should be tackled by hotel management. Many studies also call for human-like communication to properly connect with online reviewers and also expect responses in a short timeframe.

Consequently, the framework by Park & Allen (2013) connects many of these findings of different researchers. The problem-solving approach acknowledges the frustrations of customers, and aims to manage and restore the reputation of hotels in a swift, but respectful manner (Park & Allen, 2013). The strategic approach is obviously broader construct, in the sense that it is more long-term plan to build relationships with consumers and also leverage online reviews to hotels' advantage in terms of constant improvement and innovation (Park & Allen, 2013). It utilizes IT capabilities to enable operational and managerial integration (Park & Allen, 2013), which Tsao et al. (2015) also saw important in order to capitalize on traveler reviews.

Approaches to Utilizing Online Reviews

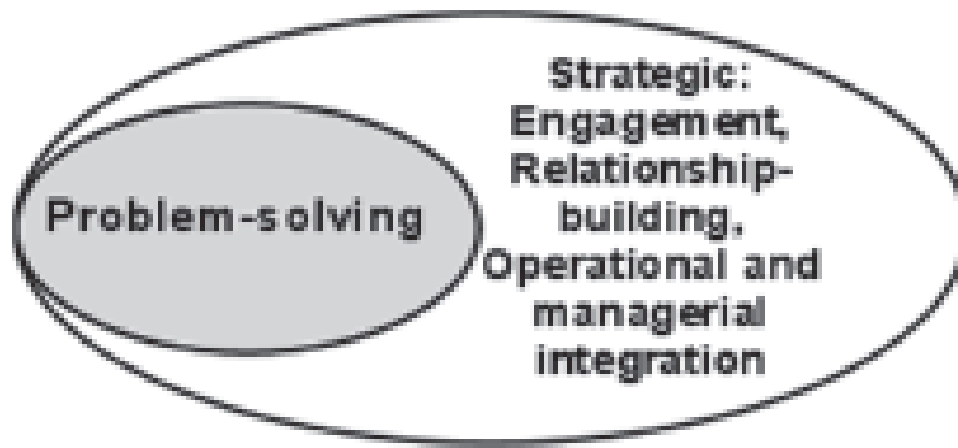


Figure 1: Approaches to utilizing online reviews (Park & Allen, 2013)

However, the framework by Park & Allen (2013) could also be developed even further by having stronger connections to other studies of online review management. Nevertheless, it's a good foundation to build deeper insight of this issue. Thus, the findings discussed in this chapter are combined into one model to provide more comprehensive understanding of online review utilization on one hand and offer more specific actions on the other. The framework below acknowledges that companies have differing goals and resources, which is why it includes three stages of implementation. Furthermore, the carefully defined practices offer hotel management a rather straightforward tool to deal with electronic word-of-mouth in strategic and efficient manner.

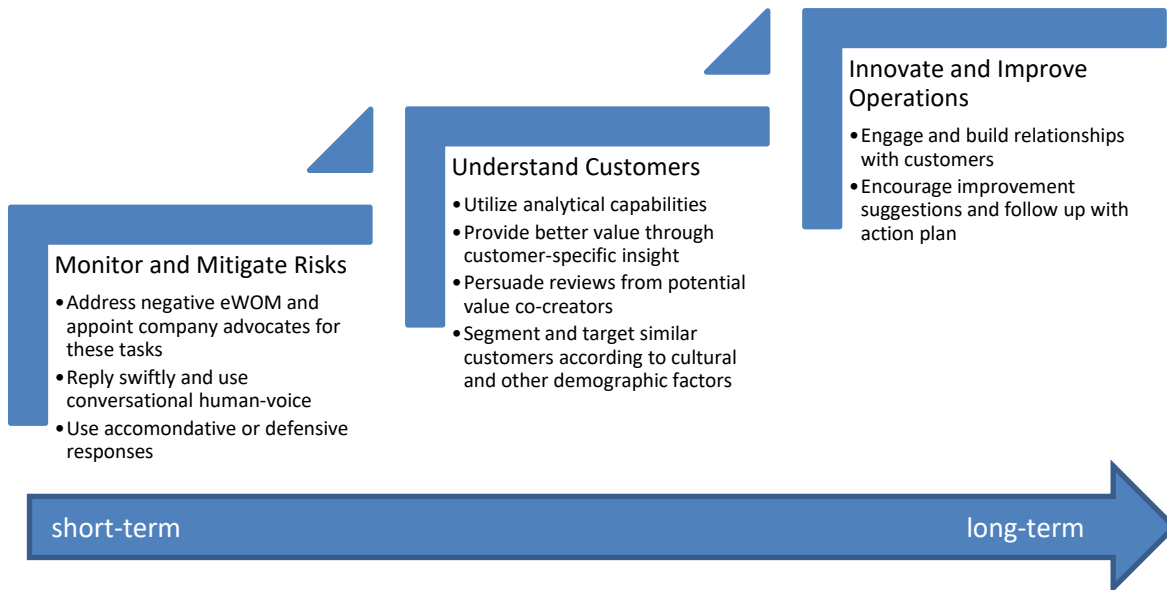


Figure 2: Management and utilization of online reviews

3 RESEARCH METHODS

3.1 Data and methods

The data used in this study was retrieved from one of the world’s largest travel and review websites, TripAdvisor (comScore Media Metrix for TripAdvisor Sites, worldwide, July 2016). TripAdvisor enables its users to rate and review hotels they visit. Additionally, users are able to book accommodation via website, view property ratings and the overall experiences of fellow travelers. Moreover, TripAdvisor offers all kinds of other travel-related content such as forums and recommendations of places to visit. Thus, TripAdvisor is a prime-example user-generated content provider and also widely utilized in travel-related research.

Utilizing this user-generated data enabled high validity as the analysis was based on large quantities of reviews. Furthermore, the study was able to compare many different nationalities and their cultural distinctions since TripAdvisor brings users from around the world to the same platform. The actual detection of nationalities was possible by using each user’s country of origin information and grouping them accordingly. Other individual characteristics such as gender, age and travel purpose were also analyzed in the same manner.

In addition, this study was able to make broad sense of hotel guests' perceptions and values since the data included various metrics concerning hotel performance such as overall-, value-, rooms-, location-, cleanliness-, service- and sleep quality rating, which then were analyzed in terms of demographic attributes. All of these different ratings are presented in Likert-scale from one to five, one being poor and five being excellent.

The reviewer demographics such as nationalities were extracted thorough the use of MySQL software and its database manipulations. As mentioned earlier, this was done by detecting each reviewer's home country and grouping them accordingly. As some reviewers for instance only mention the city they're from, the detection of nationalities required a bit more work than the similar operations on other individual information.

As a consequence, the user nationalities were discovered by searching strings of data that had at least some indication of their particular nationality. In other words cities, areas, neighborhoods and countries were used to determine to nationalities. For instance 'Berlin' or 'München' as reviewer's place of residence was grouped as 'Germany'. The code to determine nationalities looks as follows;

```
UPDATE reviewfinland SET nationality = 'Canada' WHERE location LIKE 'Toronto, Ontario'
```

and the reviewer amounts by nationality:

```
select count(*) as user_amount from userfinland where location like '%Sweden%' or location like '%Stockholm%' or location like '%Göteborg%' or location like '%Malmö%'
```

In terms of the quantities, 41 588 reviews were analyzed, covering wide variety of hotel locations throughout Finland. For the sake of the study 15 most relevant nationalities were chosen to be analyzed in terms of review amount, with fewest number of reviews being 696 (Netherlands). On the other hand, Finland (27,5 %) was the highest reviewer nationality, followed by Russia (14,5 %) and England (12,3 %).

Next step was to produce mean values of different rating metrics such as “overall rating” and “service rating” for each reviewer category. Then, ANOVA (Analysis of variance) test is carried out to analyze differences in group category means and variation among and between different hotel guests. ANOVA test was completed using SPSS statistical analysis software.

The original data contained up to 57 000 reviews, thus more than 15 000 reviews were omitted from the analysis as these samples did belong to minor reviewing nationalities with few reviews or could not be allocated to any nationality at all since this data was lacking from these reviewers. The initial

analysis included hotels throughout Finland, 431 in total. We can see from the table below that the analysis mainly consisted of hotels classified between 3 to 4,5 stars (70,1 %). Also, a quarter of the hotels did not have classification at all.

Hotel classification (stars)	Hotel amount	Proportional amount out of all hotels
5	4	0,9 %
4,5 - 4	115	26,7 %
3,5 - 3	187	43,4 %
2,5 - 2	15	3,5 %
1,5 - 0	0	0 %
not identified	110	25,5 %
Total	431	100 %

Table 2: Number of hotels used in the study

3.2 Trustworthiness of the study

In terms validity of the study there are two different aspects to consider: internal and external. Internal validity refers to the fitness of research methods and that there is cause and effect relationship between variables. This study was able to examine multiple hotel attributes and their causality in explaining hotel customers' satisfaction and values, which supports the internal validity over the achieved results. Thus, the internal validity can be considered high.

External validity on the other hand, measures the generalizability of results. Due to the large amount of data that was analyzed from many angles, the study was able to make valid generalizations of the different populations such as nationalities. Additionally, similar scientific literature supports the conclusions of this study.

When it comes to reliability of the study, it can be stated that whenever dealing with user-generated data there is naturally room for error. This means that sometimes the review information can be misrepresentative of the actual reality or completely false altogether. The literature has also touched this dilemma, where falsified reviews are posted online to either improve or tarnish the company image without proper grounds. However, TripAdvisor is one of the most reputable and reliable review sites, which increases the reliability of data and drawn conclusions overall.

Objectivity was also high in regards of the study as the data was fetched from third-party provider. The analysis itself included samples from a large database and the findings were simply based on factual numbers and data. In addition, personal bias was reduced by basing the hypothesis of the study on previous research.

4 FINDINGS

Before going through the results of this study, it makes sense to take a look at some basic data concerning tourist volumes to Finland by different countries. This gives insight into which nationalities are actually significant for Finnish hospitality industry. Below can be seen recorded visitor quantities by country, provided by Statistics Finland.

Country of residence	Visitor arrivals in all accommodation establishments	Nights spent in all accommodation establishments	Change of nights spent in all accommodation establishments, %	Nights spent in hotels	Change of nights spent in hotels, %
Total	9,562,327	17,465,241	2.2	13,831,862	2.5
Finland	7,235,930	12,719,979	2	9,836,311	1.6
Foreign countries	2,326,397	4,745,262	2.6	3,995,551	4.9
Sweden	278,979	495,512	0.6	379,616	-0.8
Germany	242,951	478,134	-1.3	389,261	-0.9
Russia	249,213	572,337	-14.7	411,072	-15.1
United Kingdom	126,619	291,129	-2.9	261,240	-1.1
United States	94,575	204,288	14.1	197,816	14.8
Norway	84,967	158,602	-4.4	121,450	-3
Netherlands	67,444	152,634	9.2	121,813	9.7
Italy	55,171	113,907	8.4	102,402	9.8
France	78,103	200,269	7.4	177,461	9.4
Japan	97,710	182,638	6.7	179,472	7.7
Estonia	72,107	163,399	1.5	117,563	6
Switzerland	62,259	135,457	-3.6	99,907	-5.1
Spain	46,684	96,524	13.5	87,066	15.1
China	136,826	196,432	23.1	192,996	24

Table 3: Visitor arrivals and nights spent by country of residence, January-October 2016 (StatisticsFinland)

Based on the actual numbers of visitors during the last year, the following population of this study also covers very well the most relevant nationalities for Finnish hospitality industry. The only exceptions are China and Estonia, which are replaced by Canada and Australia. This is because based on the analysis of TripAdvisor reviews, Canadian and Australian travelers among other nationalities had the most registered reviews on Finnish hotels.

Next, before delving into the demographics of the tourists in Finland it is meaningful to take a look at the geographical distribution of hotel reviews. Looking at the graph, it can be seen that indeed this study covers many parts of Finland, and the most populated cities. In fact the areas marked with red only indicate the fifteen most important locations with at least 500 reviews in each of them.

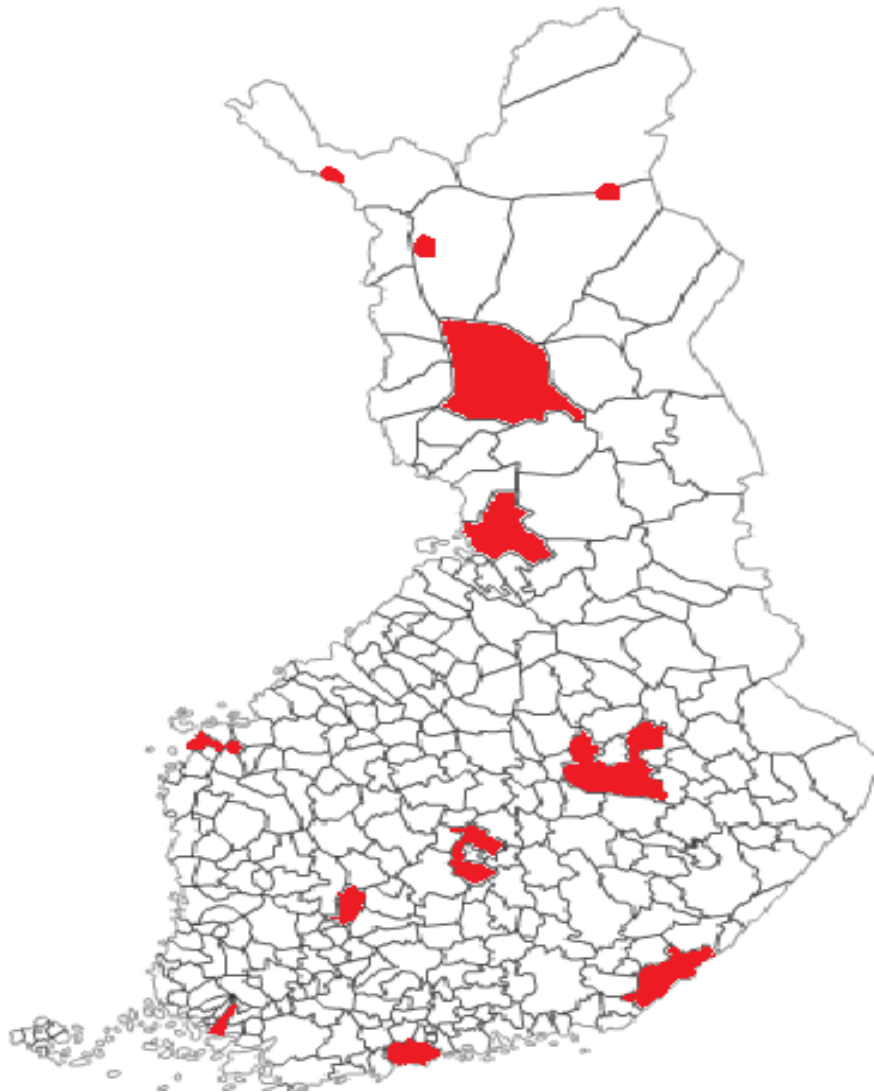


Figure 3: Areas with most reviews regarding the analysis

It may not come as a surprise that Helsinki and the metropolitan area of Finland have significant amount of the total reviews, but there are still many other areas and cities such as Tampere, Turku and Lapland that provide diversity to the analysis. Nevertheless, over half of the reviews in this analysis are from the metropolitan area hotels.

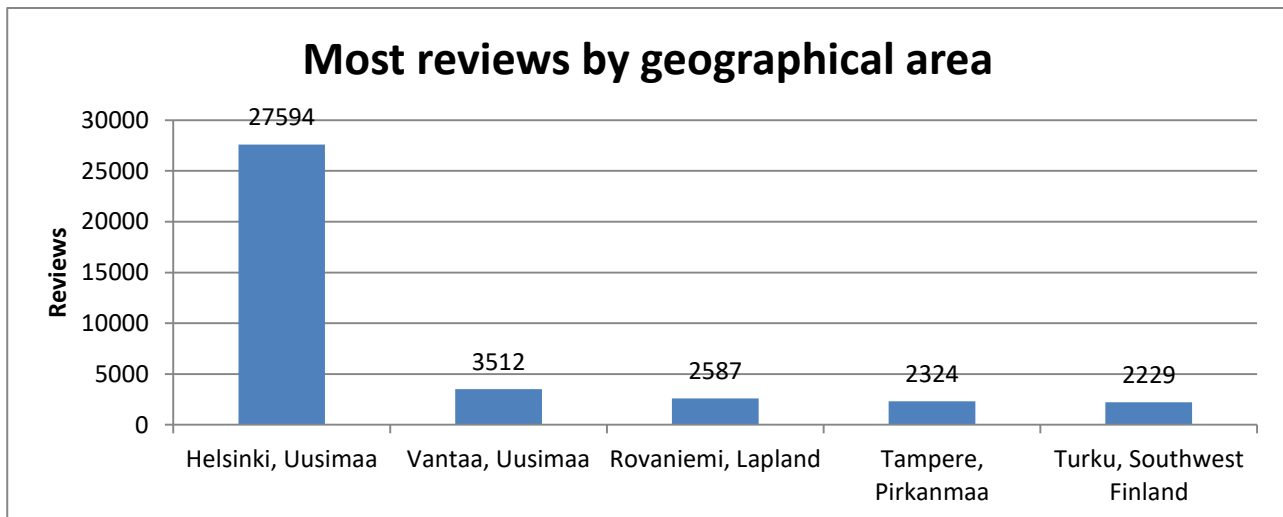


Figure 3: Most review by geographical area

4.1 Demographic information of reviewers

The analysis consisted of a little over 41 000 reviews, generated from TripAdvisor travel website. Out of all these hotel reviews, 15 most important countries were identified for Finnish hotel industry based on reviewer count. The nationalities could be fetched through reviewers' location data. However, some reviewers' nationalities could not be identified as location information was lacking. On the table below can be seen nationalities' reviewer count as well as their proportional share of the analyzed population.

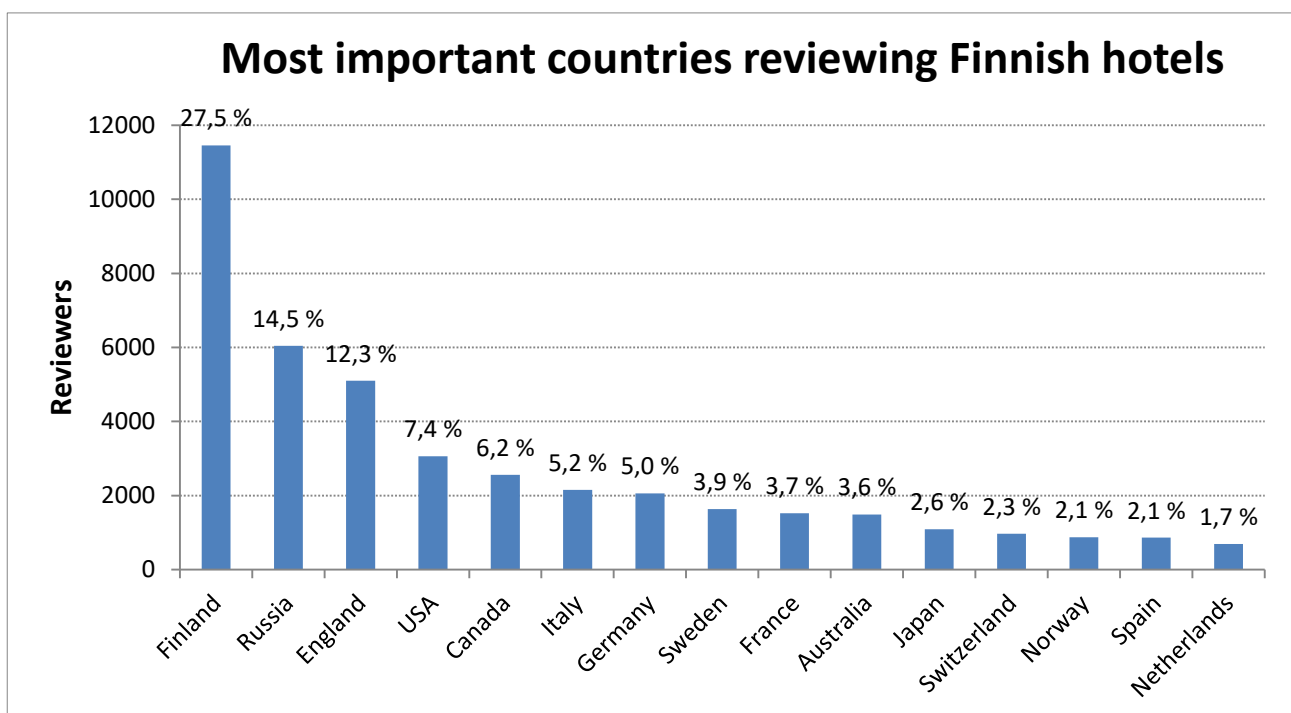


Figure 4: Most important countries to review Finnish hotels

As this graph tells us, Finnish hotel guests are the most prominent group to give reviews and ratings for their stays, followed by Russian and English tourists. This is by no means surprising information, but knowing which nationalities are next to domestic tourists in terms of rating hotels offers with new kind of insight that can be utilized for many purposes from the hotels' perspective such as directing marketing efforts effectively.

Although some of the nationality group sizes differ drastically from each other, even the smallest ones in Netherlands, Spain and Norway offer significant sample sizes for further analysis with at least 700 reviewers in all of them. In other words the results of this study can be generalized and held credible due to sufficient population data.

Next, moving on to the gender distribution of the analyzed data provides us with more understanding of the differences between male and female rating behavior. Interestingly, in all of the nationalities, except for Australia, Japan and Russia, males tend to be more active in assessing hotel performances and their qualities. However, it must be noted here that there are plenty of reviewers who have left out their gender information when giving reviews on TripAdvisor. Nevertheless, this certainly provides outlook at least to some extent of the probable differences between genders' rating proneness.

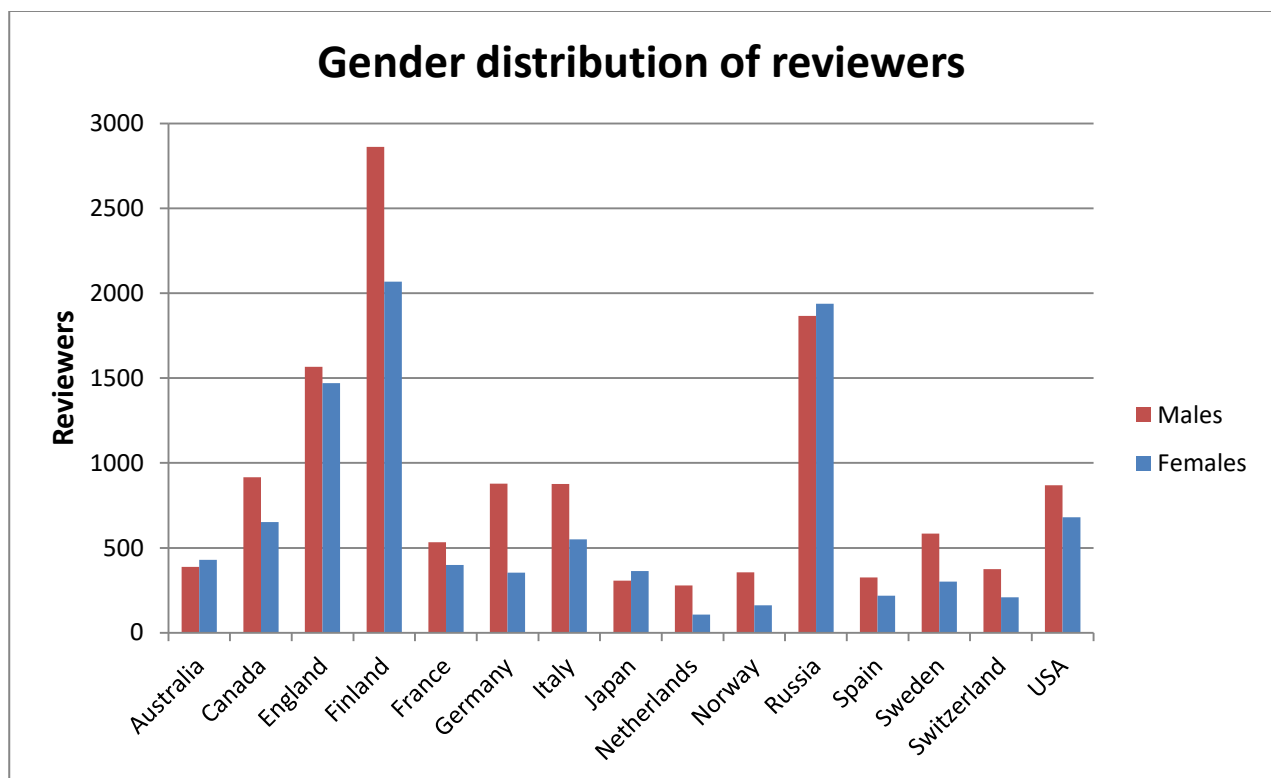


Figure 5: Gender distribution of reviewers by nationality

Age is also a significant factor when looking at demographic information of reviewers and how it affects the rating of hotels. In this study the age range distribution was quite focused on three major groups: 25 to 34 (25,2%), 35 to 49 (48,2%) and 50 to 64 (23,6%) year-olds. This might be due to the simple fact that especially below 18 year-olds tend to travel less individually and more with families, and thus limit the reviewing of hotels. What is maybe a bit surprising is the fact that 18 to 24 year-old people count only for less than 3% of the population data. This age group possesses a lot of potential also as future customers and getting them more engaged with hotels should be something to look into from the hotels' perspective.

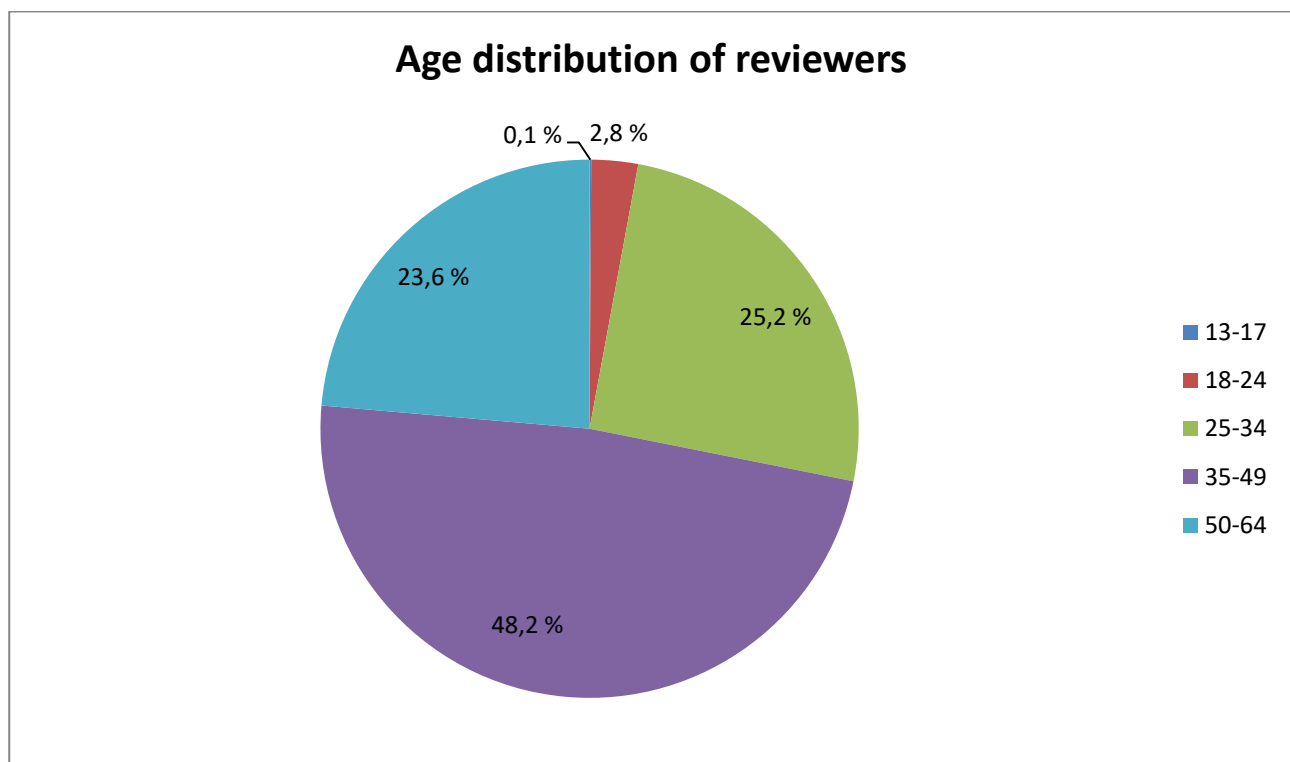


Figure 6: Age distribution among reviewers

There are also slight national differences among group categories, though it is mainly followed by the overall age range distribution. The most significant findings are that the 35 to 49 year-old category is largest for every nation except for Australia, which has 50 to 64 year-olds as the most active reviewing group of all. Also, Russia has notable amount of reviewers from the 25 to 34 category compared to 50 to 64 year-olds, which account for less than half the amount of the former group. For USA these age groups are featured similarly, but vice versa.

Below can be seen the age range distribution graph by nationality with the most important group highlighted by total reviewer count. Again, it should be noted that the more accurate the

information of reviewers, the smaller the group sizes. This is because of some reviewers tend to leave some personal information blank.

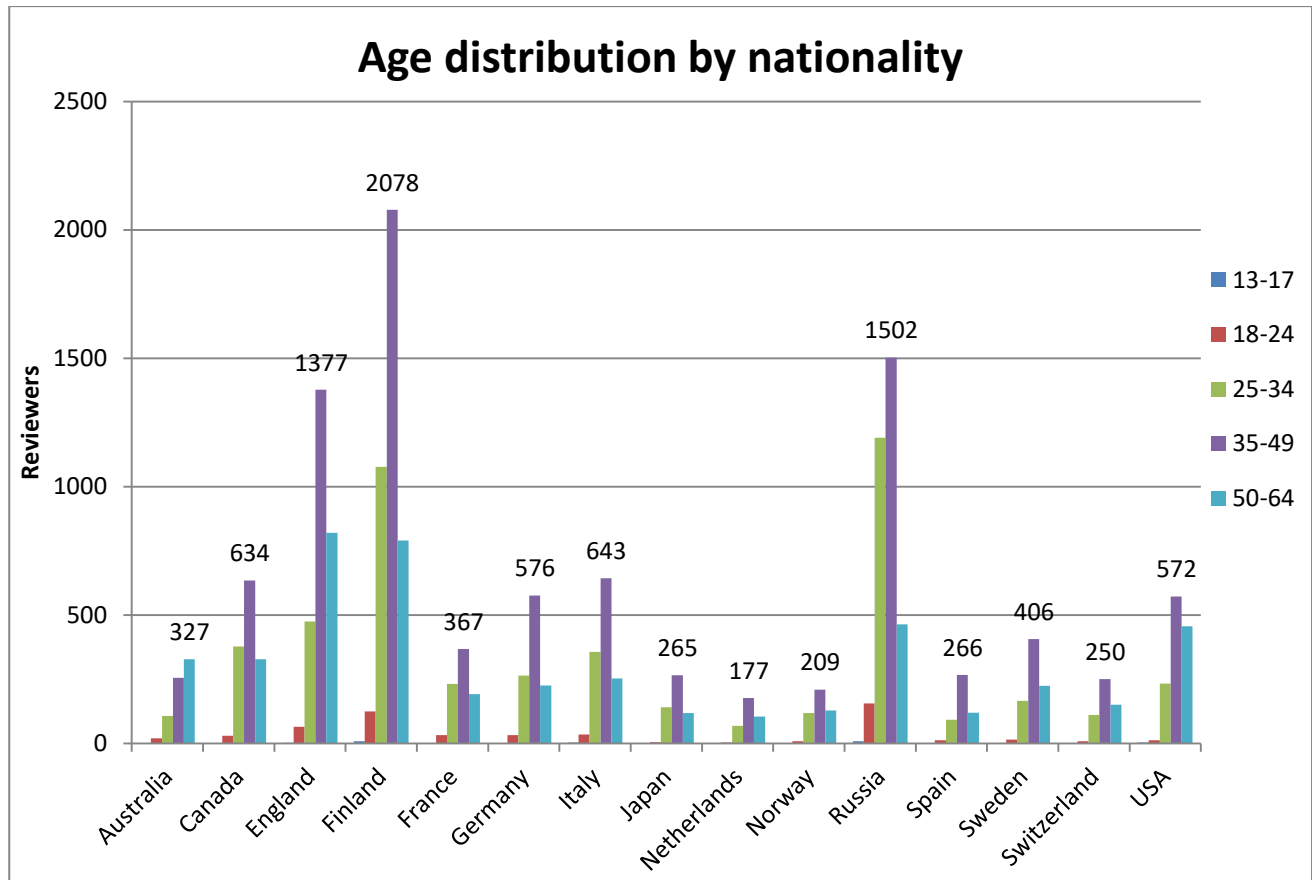


Figure 7: Age distribution by nationality

As for tourism type, there is a more balanced distribution among all categories. Couples are claiming the most significant share (31,4%) of reviewing hotels, closely followed by business (27 %) and family (22,2%) travelers. Where friends and solo travelers represent distinctly smaller categories, they still make up for over 10 000 reviewers together.

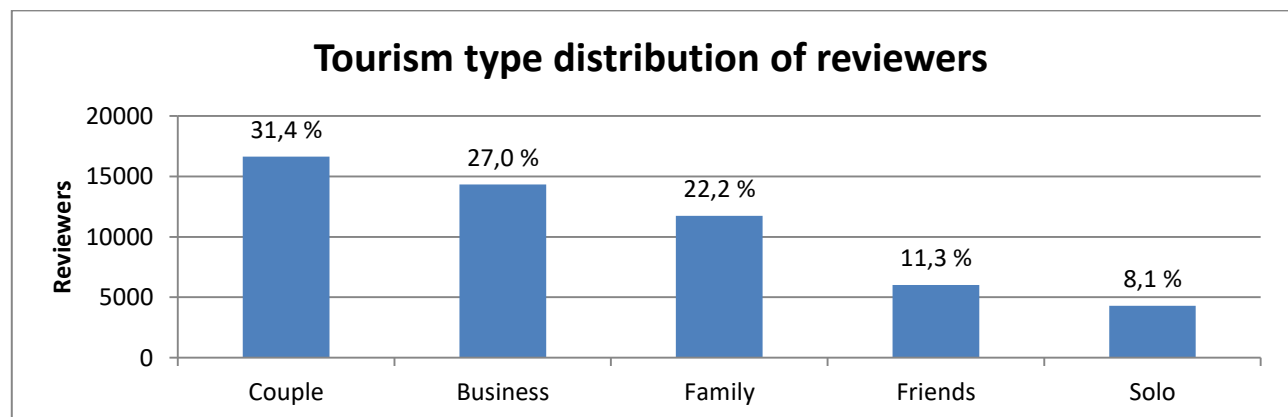


Figure 8: Distribution of tourism type among reviewers

Comparing tourism type distribution by nationality expresses more variation between the most prominent categories. Again, most nations are represented as couples being the largest reviewer category, however there are some exceptions. For Germany, Sweden, Norway and Netherlands most active reviewers are indeed business travelers, maybe highlighting the close commercial partnerships to Finland. On the other hand, families arise as the most important reviewer category for Russia, England and Japan, which can be a consequence of considerable tourism from these countries to Finland.

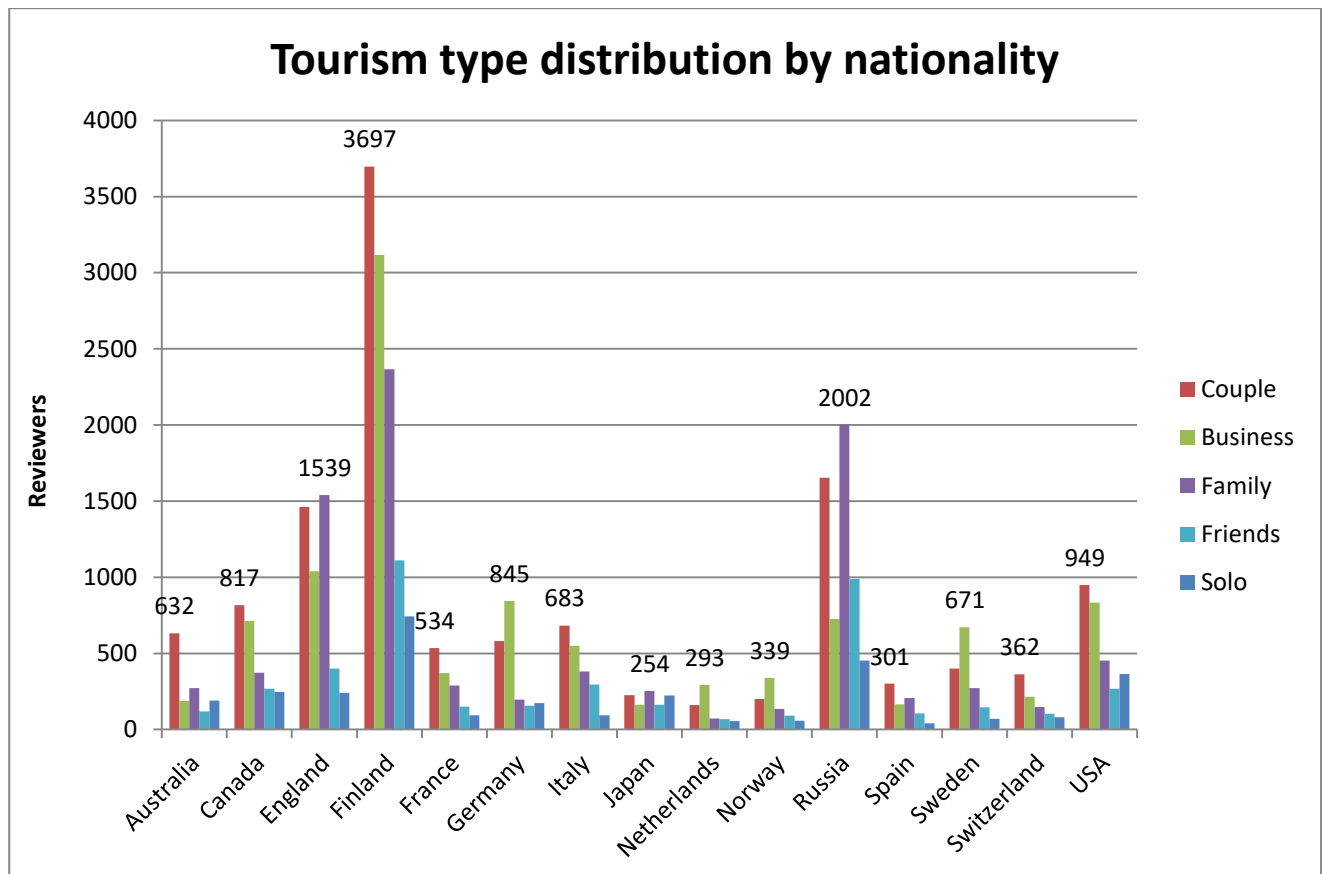


Figure 9: Tourism type distribution by nationality

Knowing even the slightest little details of the people who give hotel reviews, can help hospitality managers further to understand their customer base and how they perceive value. As seen from the above, there are differences on both national and demographical level among all reviewers for Finnish hotels. Understanding for instance which nationalities are most important and which demographical factors should be concentrated on the most, can help hotels in many ways to allocate resources accordingly and improve overall service quality and processes.

4.2 Hotel ratings among different group categories

This chapter takes a closer look at the different ratings given by tourists in Finland. More closely, culture and gender factors are compared with different rating metrics to give insight into the preferences and rating behavior of such customer groups.

4.2.1 Rating metrics

The TripAdvisor dataset consisted of seven rating metrics that all measured different qualities of Finnish hotels. *Overall rating* measures the general experience of a stay and thus can be held as the most important metric of all. *Value rating* addresses the quality-price ratio, which is many times important for price conscious customers. *Rooms rating* help to evaluate room spaces such as furniture and layout. *Location rating* estimates whether the hotel is within good distances of popular places such as city center and sights (though for some a good location can mean other things as well). *Cleanliness rating* determines the quality of cleaning services for the hotel. *Service rating* essentially addresses the staff's willingness to help and serve its customers. *Sleep quality rating* measures how well guests slept and whether there was any distractions or other problems during their sleep.

4.2.2 Overall rating for different nationalities

As can be seen from the chart below, there's clear differences in overall rating between the nationalities. The most significant disparity of all is between Finland and Russia with 0.46 separating them in overall rating category. What's more only 6 out of the 15 countries rank above the overall rating average of 3.99. This means there's definitely variability to how different nationalities evaluate hotels and different aspects of their stay. One might draw conclusions based on this data that cultural aspects are significant factor in determining how hotels are being rated in Finland. If not, at least these findings offer hotels some direction to how perceive different nationalities of hotel guests.

Examining the chart more closely, we can see that countries with English as first language (England, USA, Australia and Canada) have tendency to give higher ratings than those with another mother tongue, except for Russia of course that has the highest overall rating of all. This could be attributed to the fact that Finnish hotel employees in general have very good command of English and this in turn results in favorable reviews.

Actually, Milakhina (2015) argue in her study that Russian tourists value a lot of the hotel staff's ability to speak Russian, and interestingly language skills are one of the biggest concerns for them. Moreover, according to Tziora et al. (2016) excellent foreign language communication skills of

hotel employees correlate positively to customer experience, which backs up the assumption of language skills being one of the possible reasons for satisfaction. Thus, the same explanation could be attributed for Russians as well. Of course there are also other factors that affect overall experience such as hotel characteristics and other service aspects, but they will be discussed in more detail further on.

Japanese tourists also tend to give above four overall rating score, which is above the overall average. Accordingly, Japanese tourist increased their overnight stays to Finnish hotels by 6,7% in 2016 compared to the previous year (Statistic Finland, 2016) suggesting that there's a growing interest among Japanese tourists for visiting Finland. Japan's distinction of countries below average overall rating, however, is not likely to be explained with language proficiency of hotel employees, but other more tangible aspects that are discussed further on.

On the other side of the spectrum Finnish and Swedish hotel guests are retaining the lowest average positions, which can be attributed to the fact that they have higher expectations of the quality of hotels given their considerable presence in Finland. Interestingly, German reviewers are next to these countries having the third lowest overall rating average (3.87 out of 5.00). They are also beneath the overall average, which is conflicting with their big interest in Finland as Germans rank third in nights spent in hotels (Statistic Finland, 2016). Thus, there's definitely room for improvement from Finnish hotels' perspective so that these customer groups could be satisfied on a higher level.

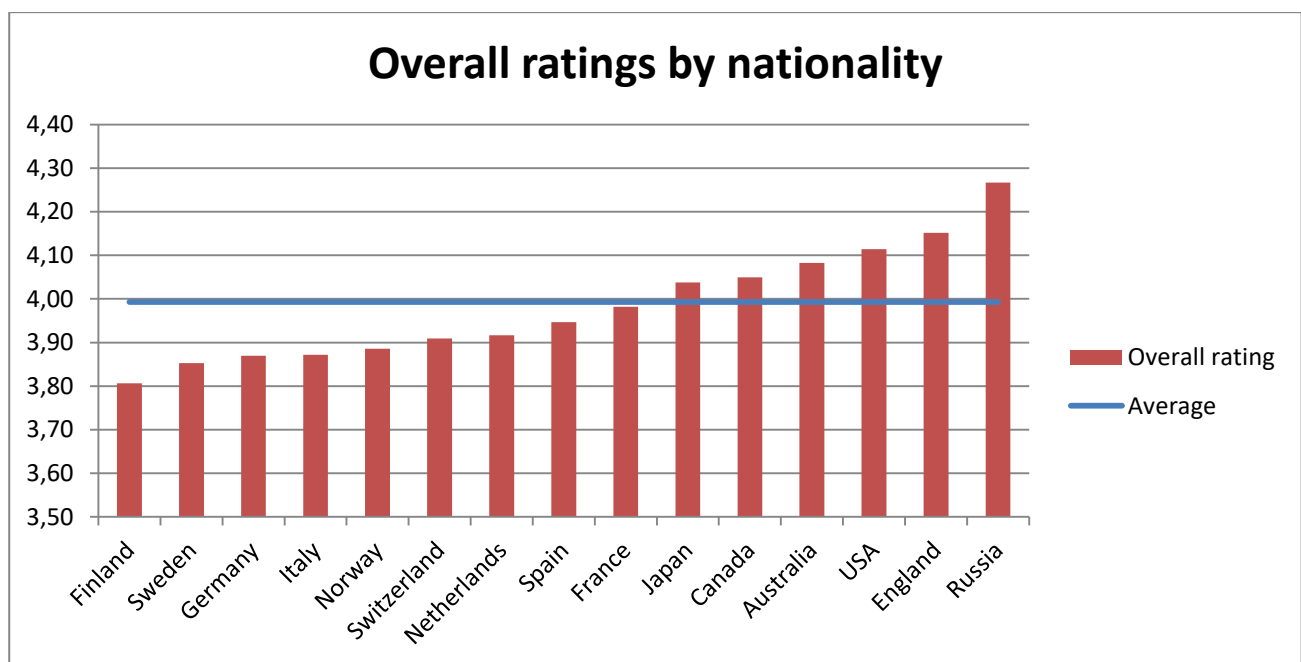


Figure 10: Overall rating by nationality

Next, looking at the interval for overall ratings among different nationalities, it can be seen that some countries tend to have larger variation than others to their overall rating average. For instance Spanish, Norwegian and Dutch hotel guests do have range of 0.13 between the highest and lowest boundaries. In comparison, Russia and England are much more homogenous group in terms of reviewing Finnish hotels with ranges worth of 0.4 and 0.5, retrospectively. Nevertheless, it can be stated that the intervals for overall ratings are relatively small and variation thus does not skew above-mentioned findings and generalizations on a national level.

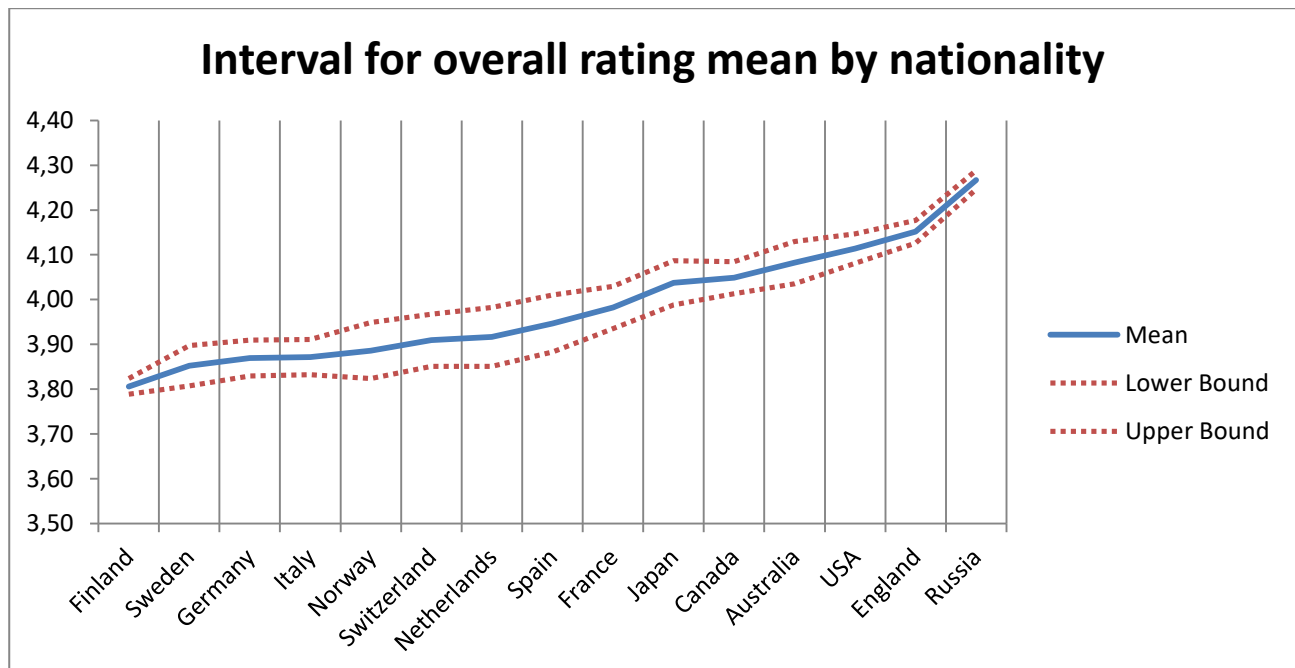


Figure 11: Interval for overall rating mean by nationality

In order to fully understand the variation among and between nationalities Analysis of variance (ANOVA) test is performed on the population. Essentially it is a statistical test that compares several group means together to determine whether or not they are equal, and thus measuring statistical significance.

ANOVA tests

We can see that the significance level is 0.000 ($p = .000$), which is below 0.05 and, therefore, there is a statistically significant difference in the mean of overall between the different nationalities. However, what we yet don't know from this information is which of these specific nationalities differed in their rating behavior. For this purpose we utilize the Post-hoc tests that explain the differences and comparisons among different nationalities' rating.

ANOVA

Overall rating

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1165,867	14	83,276	98,842	,000
Within Groups	35025,968	41573	,843		
Total	36191,836	41587			

Table 4: ANOVA test on overall rating averages of nationalities

Post-hoc tests

There are many interesting findings to be made between countries tendency to rate hotels either differently or similarly to each other. As this study aims to provide hotels with tools to manage and understand their customers better, it computes to find out which of the groups are homogeneous in their behavior and expectations. This is due to the fact that for instance marketing efforts in general try to achieve consistency in targeting similar customer groups and nurturing them further.

The table below represents the most important countries and their cross-comparisons in terms of nights-spent in Finnish hotels during the last year and also some additional interesting observations. Values that are equal to or below the confidence level of 95% (≤ 0.05 significance) indicate statistically significant difference to how nationalities in question rate Finnish hotels. On the other hand the closer the confidence level is to 1.00, the more similar is the rating behavior of corresponding nationalities. For the sake of this study, the focus is on the latter one.

Multiple Comparisons

Dependent Variable: overall_rating

Tukey HSD

(I) nationality	(J) nationality	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Finland	Sweden	-,046	,024	,854	-,13	,04
	Norway	-,080	,032	,452	-,19	,03
	Italy	-,065	,022	,141	-,14	,01
	Germany	-,063	,022	,207	-,14	,01
	Netherlands	-,110	,036	,124	-,23	,01
England	Australia	,069	,027	,403	-,02	,16
	USA	,038	,021	,901	-,03	,11
Sweden	Finland	,046	,024	,854	-,04	,13

	Norway	-,034	,038	1,000	-,16	,10
	Italy	-,019	,030	1,000	-,12	,08
	Germany	-,017	,030	1,000	-,12	,09
	Switzerland	-,057	,037	,972	-,18	,07
	Spain	-,094	,039	,480	-,23	,04
	Netherlands	-,064	,042	,969	-,21	,08
France	Japan	-,055	,036	,974	-,18	,07
	Switzerland	,073	,038	,835	-,05	,20
	Spain	,035	,039	1,000	-,10	,17
	Netherlands	,066	,042	,966	-,08	,21
	Canada	-,067	,030	,626	-,17	,03
Germany	Sweden	,017	,030	1,000	-,09	,12
	Norway	-,017	,037	1,000	-,14	,11
	Italy	-,002	,028	1,000	-,10	,09
	Switzerland	-,040	,036	,999	-,16	,08
	Spain	-,077	,037	,749	-,20	,05
	Netherlands	-,047	,040	,998	-,18	,09
USA	England	-,038	,021	,901	-,11	,03
	Australia	,031	,029	,999	-,07	,13
	Japan	,076	,032	,548	-,03	,19
	Canada	,065	,025	,346	-,02	,15
Spain	Sweden	,094	,039	,480	-,04	,23
	France	-,035	,039	1,000	-,17	,10
	Norway	,061	,044	,989	-,09	,21
	Japan	-,091	,042	,685	-,23	,05
	Italy	,075	,037	,779	-,05	,20
	Germany	,077	,037	,749	-,05	,20
	Switzerland	,037	,043	1,000	-,11	,18
	Netherlands	,030	,047	1,000	-,13	,19
Canada	France	,067	,030	,626	-,03	,17
	Australia	-,033	,030	,999	-,13	,07
	Japan	,012	,033	1,000	-,10	,12
	USA	-,065	,025	,346	-,15	,02

*. The mean difference is significant
at the 0.05 level.

Table 5: Post-hoc tests, multiple comparisons

As can be seen from the table, Finnish hotel guests have some similarities to other nationalities when it comes to reviewing stays. This is especially the case with Sweden (.854 significance),

which in a way isn't a surprise given that both countries and their citizens have same kind of values and cultural expectations. The same comparison could also be made towards Norwegian reviewers as they among ever so similar Nordic countries.

British tourists are actually very significant customer group because of their importance to Finnish tourism as the country ranked fourth in terms of night spent in hotels during 2016. Moreover, the British people are only behind Russians when it comes to highest overall rating averages (4.15 out of 5.00). In the Post-hoc test the British have similar reviewing habits with its fellow English-speaking countries USA and Australia. Especially Americans are very much alike to the British reviewers with .901 significance level, indicating that these two countries have same kinds of expectations towards hotels.

Sweden, being two second most important country for Finnish hotels, has also some interesting observations of their reviewing habits. We already covered the resemblance with Nordic countries, where Norway though appears to be more identical with Sweden than Finland. In other words, Finland has differences to some extent with these countries. Other than that, Italians and Germans specifically seem to have exactly comparable reviewing of hotels with the Swedish.

Germans reviewing also goes hand in hand with Italy, Switzerland, Netherlands and Norway. French visitors on the other hand have few nationalities with same kind of reviewing experiences, Spain being the most notable one. Americans, then quite rationally review hotels similarly with British, Australians, Canadians, and interestingly Japanese. Spanish reviewers are those that have most in common with many of the nationalities, apart from few exceptions. This can be due to the fact that Spanish reviewers tend to give average ratings for hotels and thus they rank just about median when it comes to overall rating averages. Lastly, Canadian reviewers have similar way of rating hotels with French people, which could be maybe attributed to common language and cultural characteristics.

4.2.3 Overall rating for different nationalities with gender distribution

Another interesting distinction can be made between genders and their tendency to rate Finnish hotels. As the chart below suggests, females in general tend to be more generous in giving better overall ratings. This assumption only falls short in the case of Netherlands, where the difference between males and females is very small.

The most significant differences between females and males on average are for France (.228 point difference), Australia (.212 point difference) and England (.152 point difference). These values

might not feel notable at first glance, but taking into account that on average females always tend to give up to more than two tenths of a higher average rating to male reviewers, they surely become more relevant. Moreover, the sample sizes are quite big, which level the differences even further.

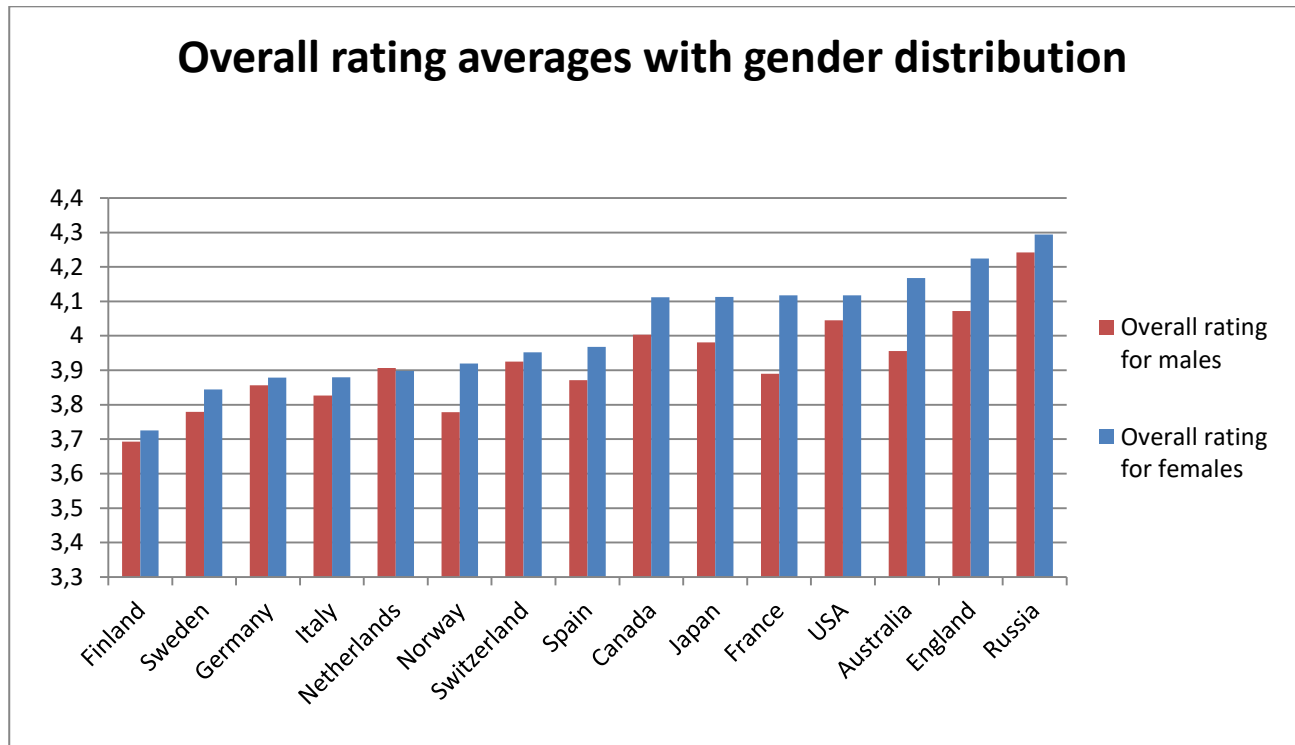


Figure 12: Overall rating averages with gender distribution

These results could also be related to social sciences to see whether countries with more gender inequality actually correlate with people having greater differences in their rating habits. For this purpose Gender Inequality Index (GII) is utilized to discover whether this hypothesis holds true or not.

GII essentially combines reproductive health, empowerment and the labor market information of both genders to find out how much inequality a country may have. The latest published index dates from 2014, where some clear differences to inequality can be seen among the nationalities used in this study. The lower the GII value, the more equal country is in question.

It is no surprise that the Nordic countries and other Central European countries such as Switzerland and Germany are ranked on the top positions of the index. United States, Russia, United Kingdom and Japan, on the other hand, are far more unequal according to GII. These facts can be connected to the average differences among genders from different countries as more equal countries in general have less variation in their rating behavior. The same observation can be made about more

unequal countries; females and males tend to have greater differences in how they rate hotels for these nationalities.

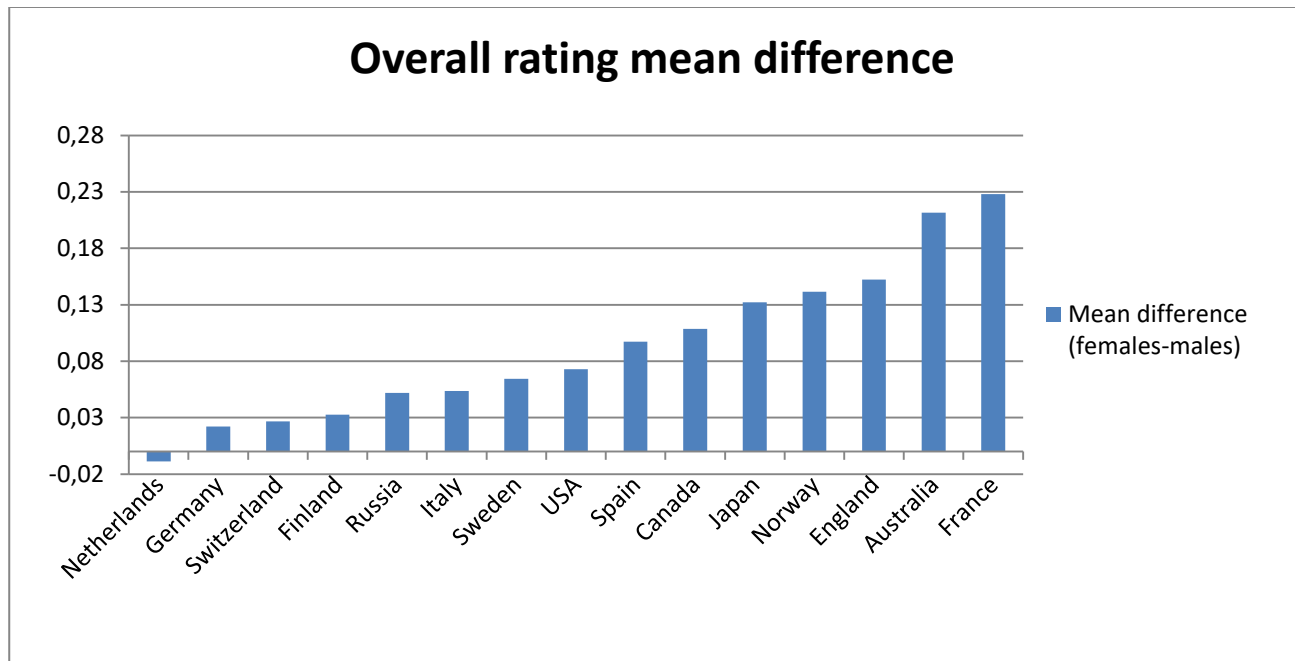


Figure 13: Overall rating mean difference between genders

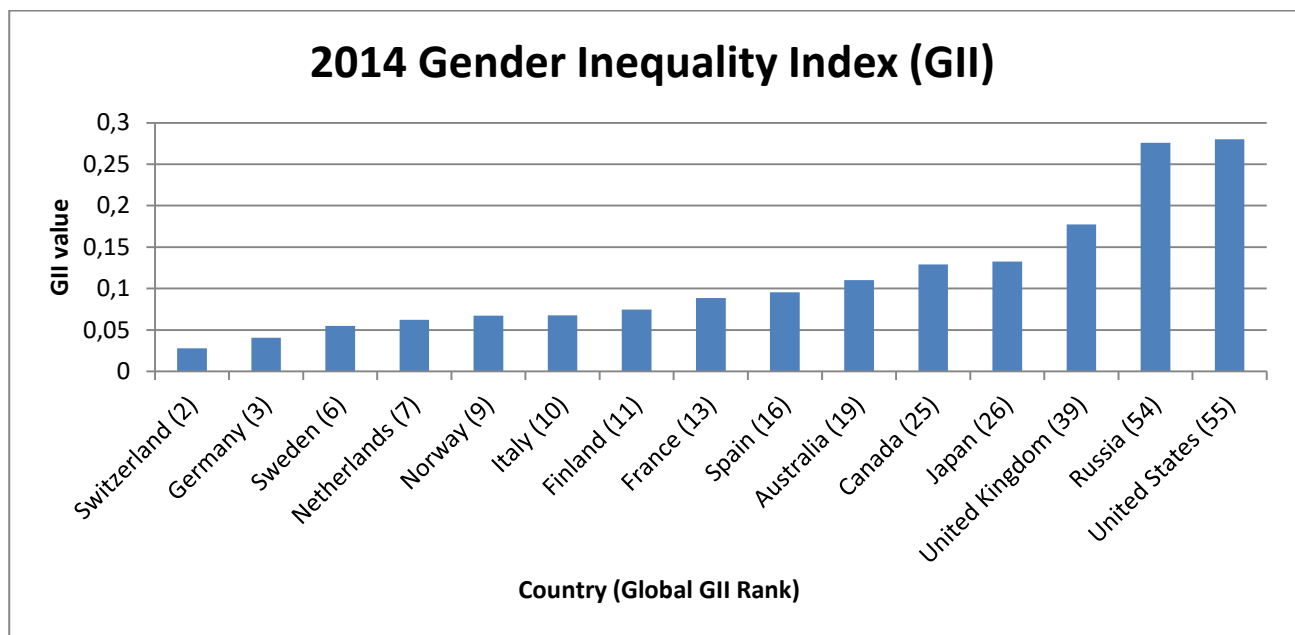


Figure 14: Gender Inequality Index (2014)

While gender equality and rating behavior seem to have similarities with each other, it doesn't take into consideration the variation that occurs between genders of different nationalities. This is an

important aspect to consider as greater within-group variation can potentially skew the generalizability of results. Thus, the charts below give an idea about the statistical dispersion of overall ratings among males and females. The blue line in the middle indicates the overall rating mean of both genders, whereas the red-dotted lines illustrate the range between highest and lowest rating values.

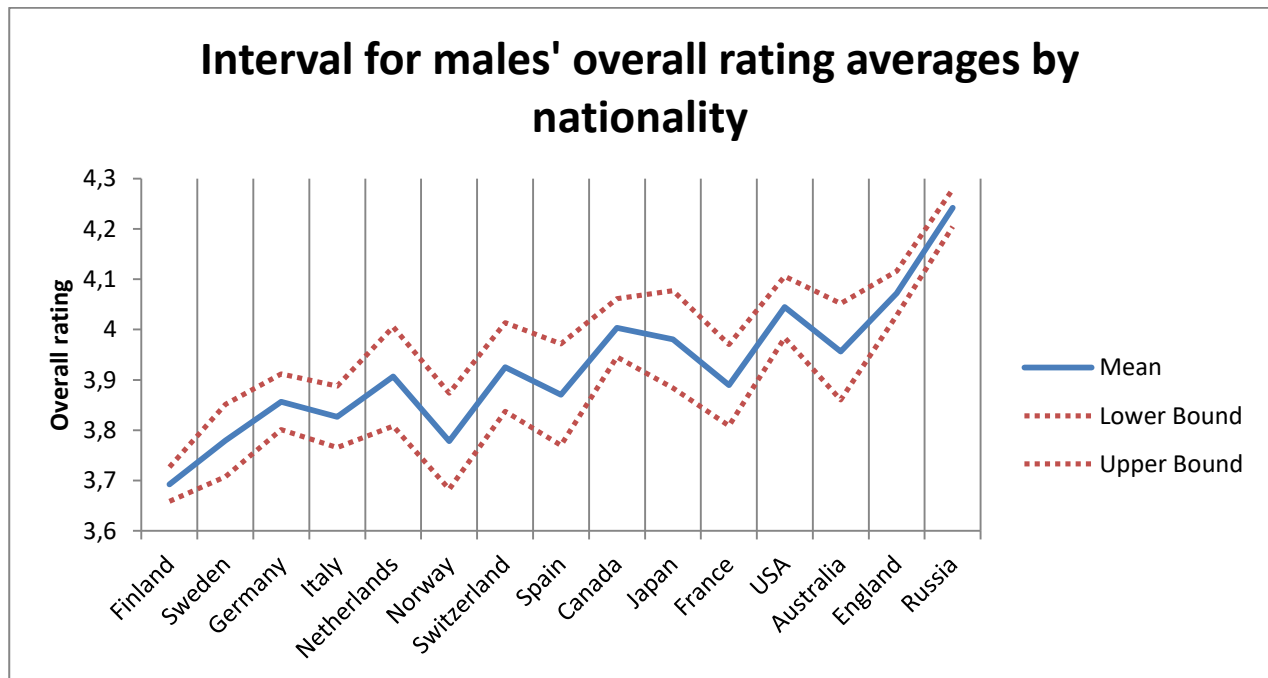


Figure 15: Interval for males' overall rating averages by nationality

The nationalities are quite different to each other in the male category with Finland claiming the lowest average rating of 3.69 and Russia having the highest averages worth of 4.28. Looking at the intervals of those average ratings, however, show relatively normal spread around the means of each country. Russian and British tourists are the most consistent reviewers of all countries with only a little variation among them.

Female reviewers are also fairly uniform group with certain exceptions. The Dutch, Norwegian and Swiss reviewers especially have greater spread around the means, which could be explained by outliers or statistical dispersion. Actually, their respective standard deviations of the mean are among the highest of all, meaning that the overall ratings are spread out to a wider range of values. Russian and English tourists have again the least variation in terms of their reviewing scores for female category.

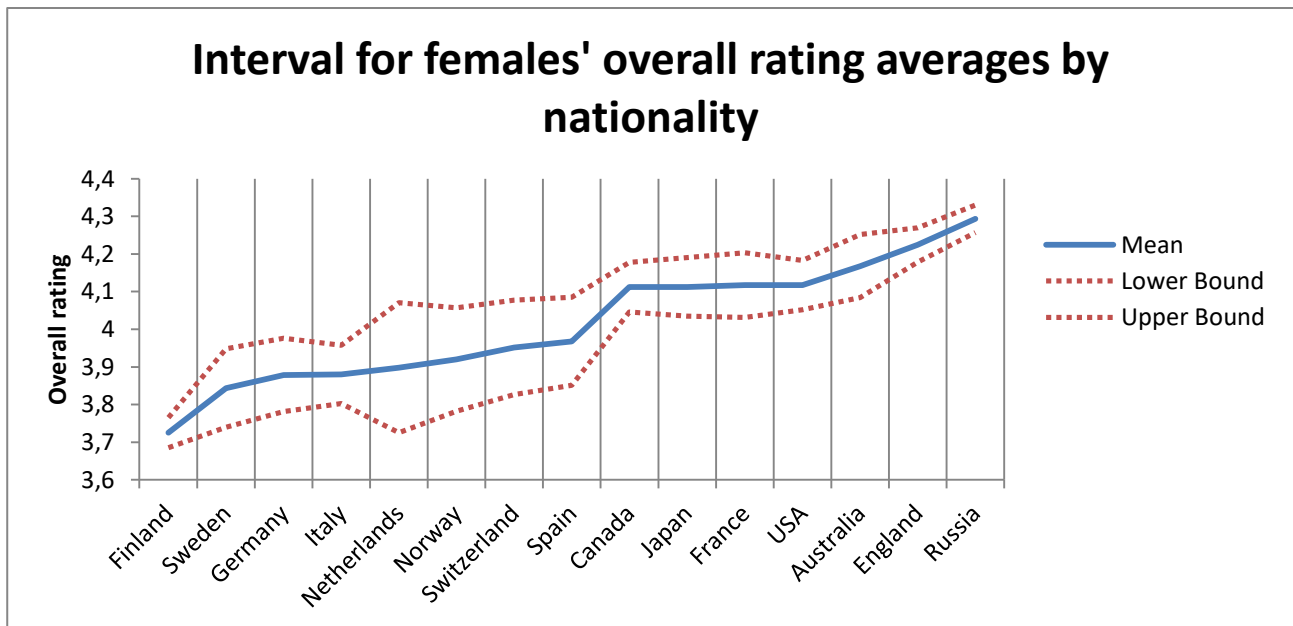


Figure 16: Interval for females' overall rating average by nationality

The standard deviation table, thus allows building closer understanding about the actual statistical dispersion of reviewers and conclude, which groups differ the most in their rating behavior. Even though Finnish, German and Swedish reviewers have highest standard deviations of the analyzed nationalities, these groups have rather low range of values around the mean. This essentially means that all rating values are occurring in in smaller scale even though the observations are more scattered. Also, the standard deviations for Switzerland and the Netherlands are not too far off from Finnish values for the female category, meaning that that these groups are more heterogeneous than others.

	Standard deviation (of overall rating average)														
	Germany	Finland	Italy	Sweden	Switzerland	Netherlands	England	Norway	Australia	Spain	France	USA	Canada	Russia	Japan
Females	0.93	0.93	0.93	0.92	0.92	0.91	0.89	0.88	0.88	0.88	0.87	0.87	0.86	0.82	0.75
Males	0.83	0.93	0.92	0.89	0.87	0.83	0.89	0.92	0.96	0.92	0.95	0.92	0.89	0.81	0.86

Table 6: Standard deviation of overall rating averages between genders

4.2.4 Other ratings for different nationalities

Next, we take a look at some other significant rating metrics that affect to the overall experience of hotel stay. In particular, the following aspects are being analyzed further: value, rooms, location, cleanliness, service and sleep quality. The values represented by nationality are average values of the population. The blue line indicates the overall average between all nationalities.

Value rating

For price conscious customers especially, value aspect is highly important when staying in hotels. Hotel guests consider the ratio of price and quality when assessing this metric. In terms of ratings, Russians are again in their own category with over four average rating. The next positions are occupied by English speaking nationalities (England, USA, Australia and Canada). Value rating is, however, the worst rated metric of all with 3.84 mean. This indicates that general prices are not quite meeting the expected value in the minds of hotel guests.

Surprisingly, Japan has the lowest value rating even though it had among the highest overall ratings out of all countries. Thus, this seems to clearly clarify some of the improvement areas from Japanese tourists' perspective. This is certainly something that hotels should try to improve when dealing with Japanese tourists, and essentially satisfy their needs better as they are one of the more important tourism segments for Finland (Statistics Finland, 2016). For instance giving out vouchers to price-sensitive customers could both improve the satisfaction on value and establish recurrent visits in the future.

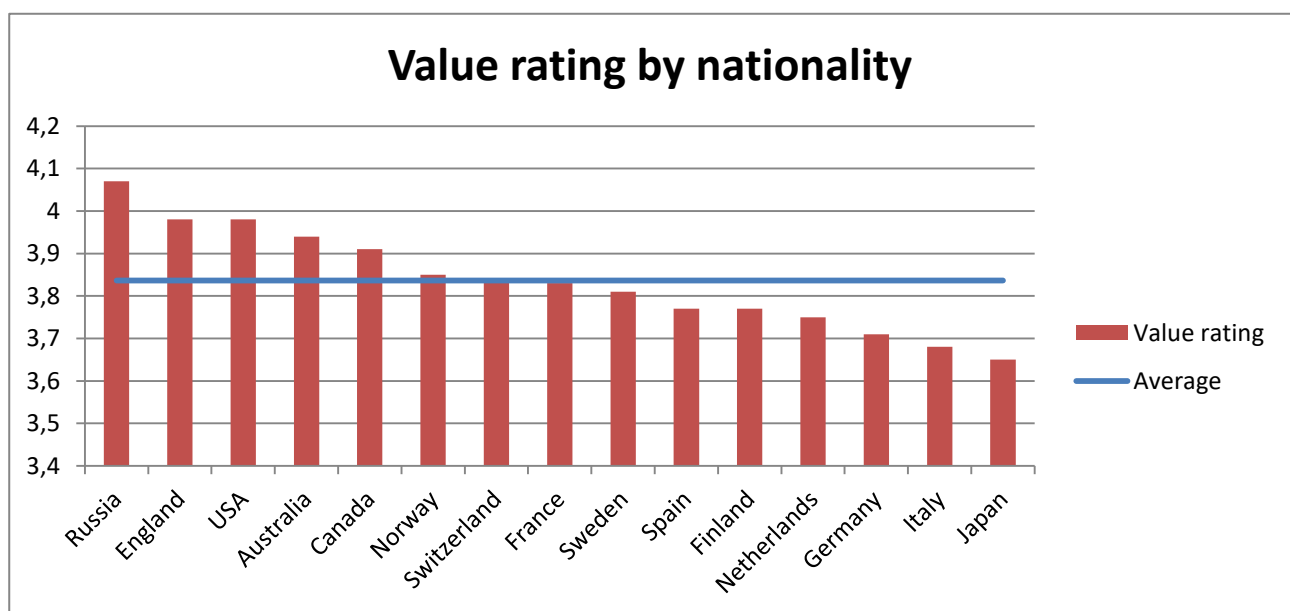


Figure 17: Value rating averages by nationality

Rooms rating

This metric assesses the features of hotel rooms such as furnishing and design aspects. The chart below shows that customers from all countries are not as satisfied with the facilities as they are with other hotel attributes. The rooms rating is actually the second-worst rated metric for all nationalities, which raises a question of the hotel room qualities in general. Moreover, Liu et al. (2017) proposes that rooms are one of the most important drivers for satisfaction for European tourists. Thus, hotels that are aiming to improve their performance and attractiveness should definitely look into developing their room aspects.

In terms of actual results, Finnish and Italians are the most critical when it comes reviewing hotel rooms while Russian and English-speaking countries are giving highest ratings, followed by Japanese and French tourists. As majority of European countries have below average rating score, it clearly shows the expectations that European hotel guests are placing on rooms given the already mediocre mean.

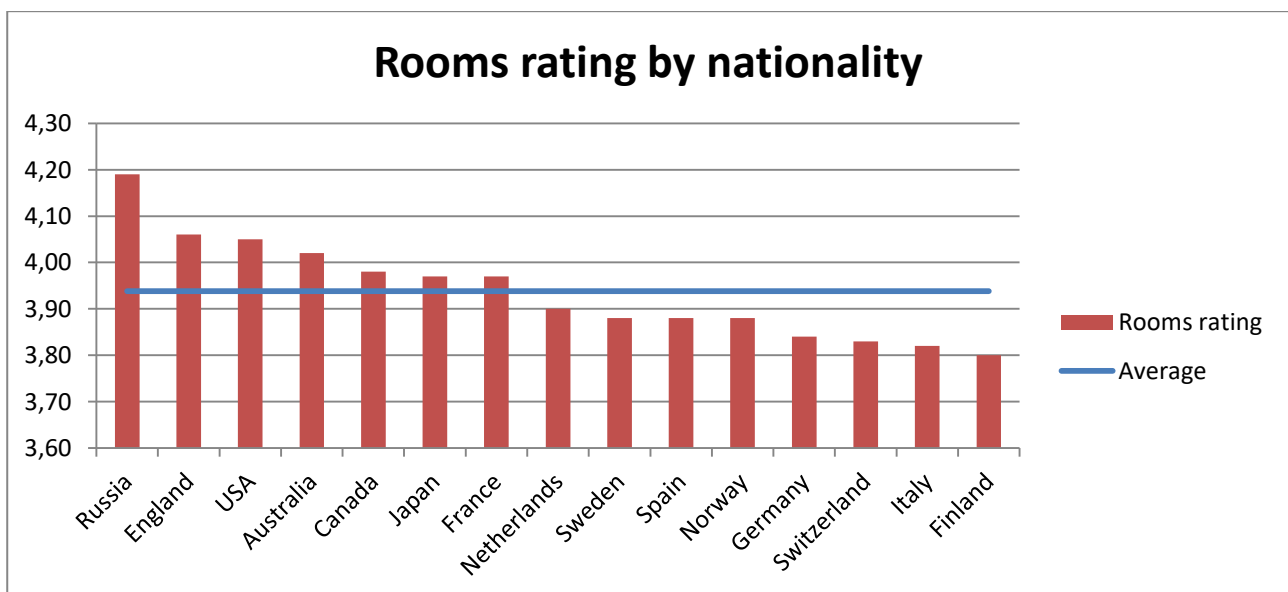


Figure 18: Rooms rating averages by nationality

Location rating

Location is definitely a sought-for criterion when choosing hotels among tourists that value convenience. It enables easy access to services and social activities among others. As we can see from the chart, location ratings have highest values of all metrics, which shows that customers are more than pleased with hotel locations in general. Thus, there are rather small differences across different nationalities when reviewing hotel locations. The lowest location rating of 4.24 (Sweden)

is still very satisfactory and shows that this hotel attribute does not require as much attention as the other metrics.

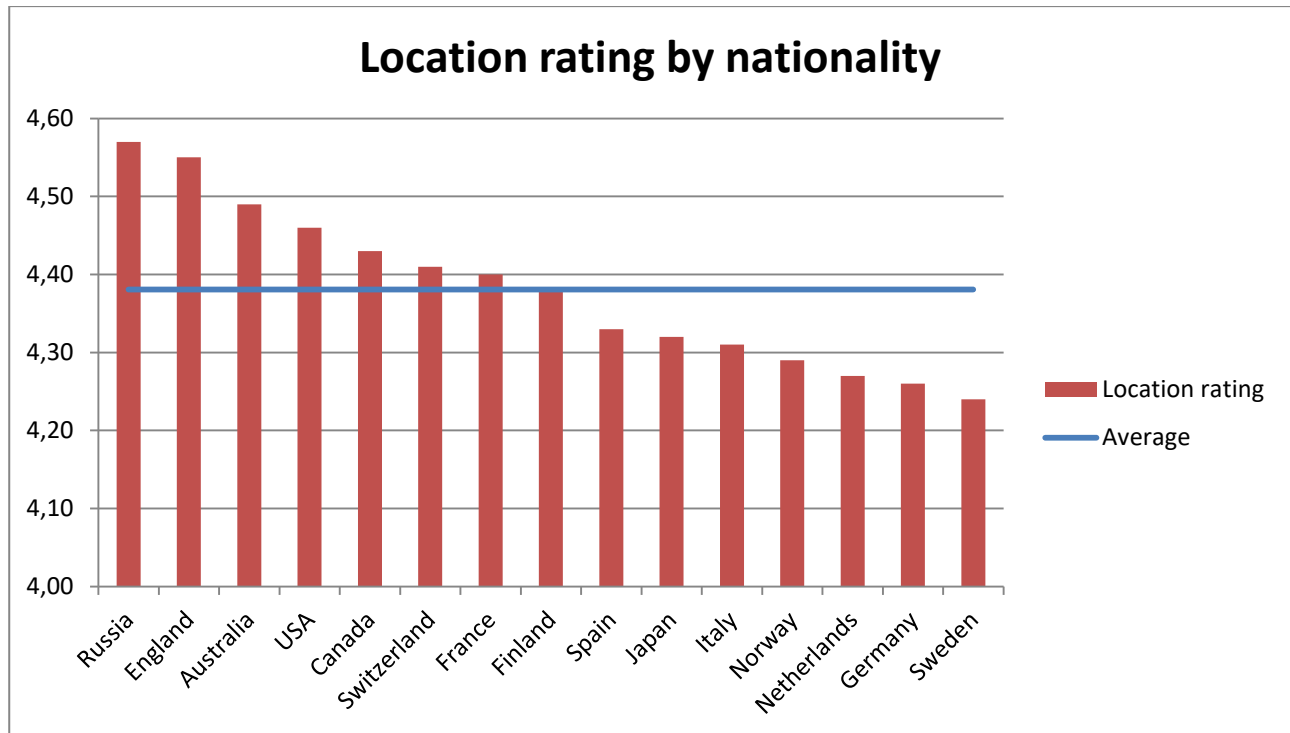


Figure 19: Location rating averages by nationality

Cleanliness rating

Cleanliness is also an important aspect of comfortable stay and can have a lot of influence for customers' perceptions of hotels, especially in its negative sense. Altogether, this rating metric manages very well with every country giving above four ratings.

Moreover, Liu et al. (2017) found out that cleanliness is not as important for English-speaking customers as it is for those guests that speak German. This finding could be also supported by the graph below as Germany and Switzerland have significantly inferior rating averages to English-speaking tourists. It would suggest that more valued preferences are also reviewed more critically, as it seems to be for German-speaking tourist with cleanliness aspect.

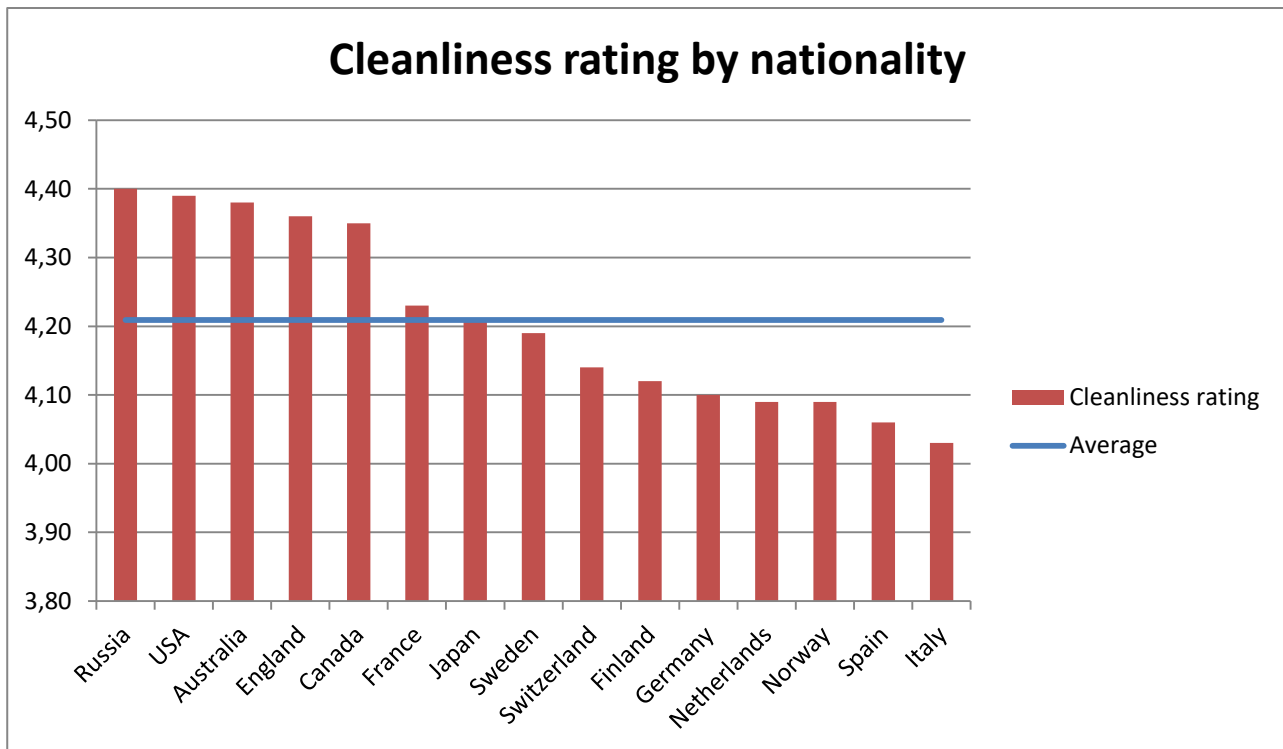


Figure 20: Cleanliness rating averages by nationality

Service rating

In today's service centered economy, you cannot underestimate the importance of service quality and its effects on customer perceptions. Sometimes customers could forgive other shortages in hotels such as location, as long as the customer service has been great. According to the data, it can be seen that the service has been on fairly good levels, but it also could be better. Actually, Sparks and Browning (2011) suggest that "the quality of the interactions with staff that is critical in influencing trust perceptions of the hotel", thus highlighting the importance of service quality to customers' conception and overall satisfaction. Liu et al. (2017) shares similar remarks of the significance of services for European tourists, especially.

Also, according to Choi and Chu (2000) Western tourists consider service quality the most important aspect of overall satisfaction when staying in hotels. This can also explain the critical expectations of European countries apparent on the graph, with majority of the nationalities having below average service rating score. Again, this is just a hypothesis that reviewers who actually value service quality tend to evaluate it more critically than others, but it is supported by other studies as discussed.

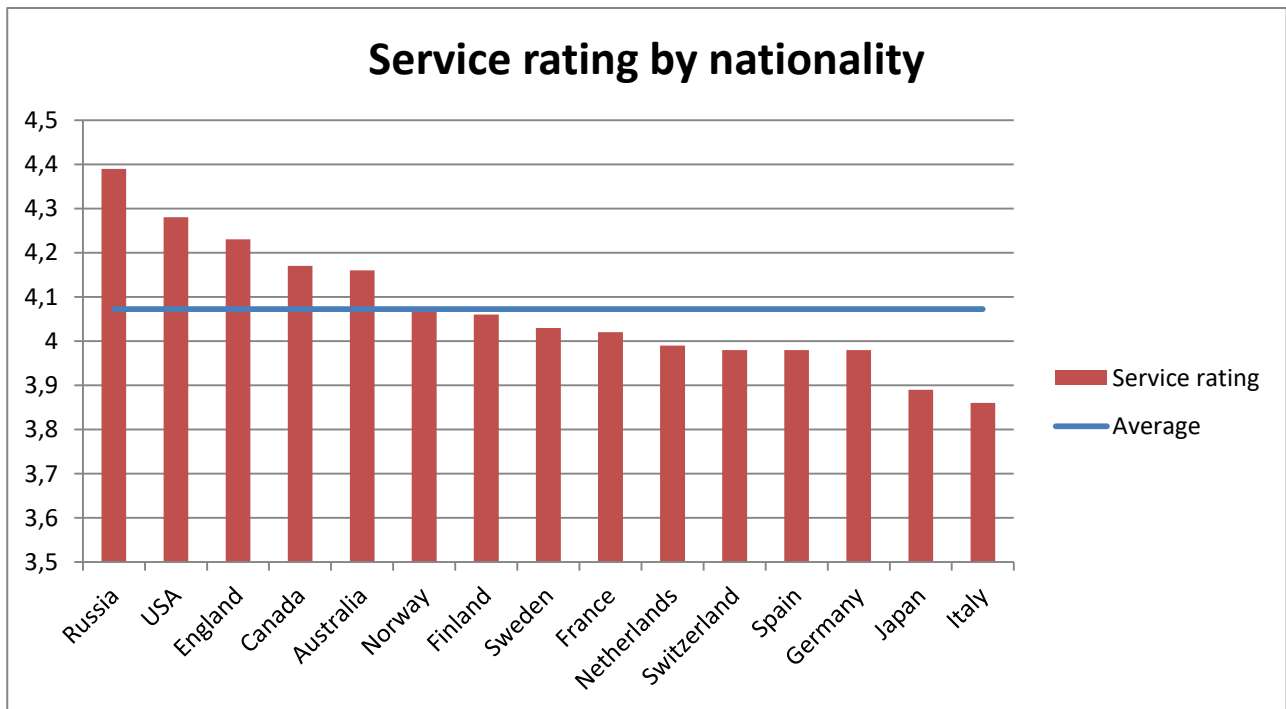


Figure 21: Service rating averages by nationality

Sleep quality rating

When it comes to sleep quality, all reviewers illustrate very positive results with every country having above four average rating. The effects of sleep quality to overall hotel guest satisfaction have not been extensively studied in prior research and thus it is hard to make greater speculations of its significance. On the other hand, sleep quality is probably more affected by other hotel attributes such as rooms and cleanliness.

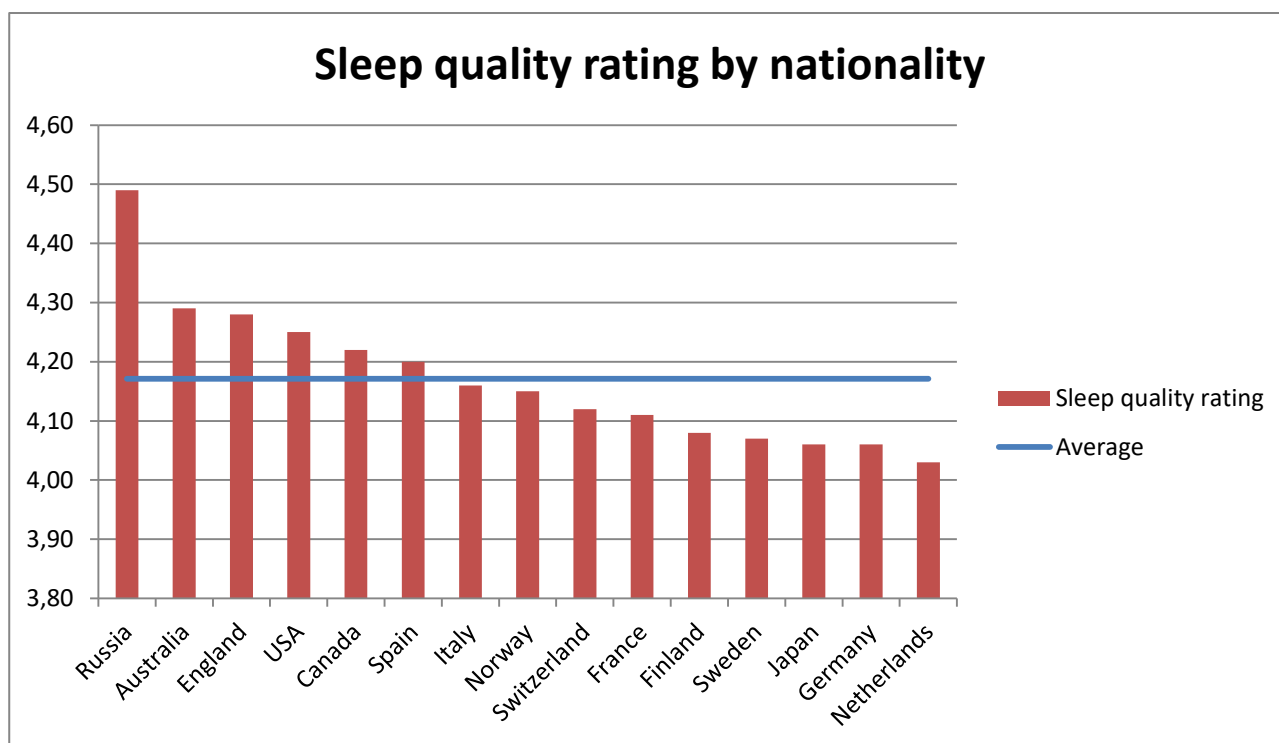


Figure 22: Sleep quality rating averages by nationality

In conclusion, Russia tops all of the above ratings, which is in fact a very positive outcome given the high importance of Russians to the Finnish hospitality industry. Moreover, all English speaking countries have above average ratings in all metrics. This is quite interesting as there is a clear difference to how this particular group of reviewers rate hotels compared to Europeans. This could be down to differing cultures and expectations of value, but it is certainly an area that should be researched further.

Japan as the only Asian country has surprisingly low value, service and sleep quality ratings in comparison to other nationalities. In contrast, the overall rating of Japanese reviewers is above average and among the highest ones, which is surprising. Moreover, the results show that value and room aspects should be a priority for hotels as the overall rating mean for all nationalities is higher than the averages of both metrics. In other words, by improving value proposition of hotels and room conditions customers might be prompt to give higher overall ratings. This assumption is also in line with findings of Liu et al. (2017) that suggest hotel rooms being a key determinant for hotel guests' rating behavior.

4.3 Hotel guests' tendency to write reviews

The hypothesis of this study was that reviewers' tendency to write reviews depended on their overall satisfaction. As we take a look at some analysis on this matter, it can be seen that this

hypothesis holds true. In fact, the chart below shows that hotel guests are more prone to give reviews when they have been satisfied, even though it's hard to say how many of the unsatisfied customers actually go online and vent their feelings. Nevertheless, it is still obvious that in general customers are motivated by sharing positive feedback and letting others know when they have encountered good quality hotels.

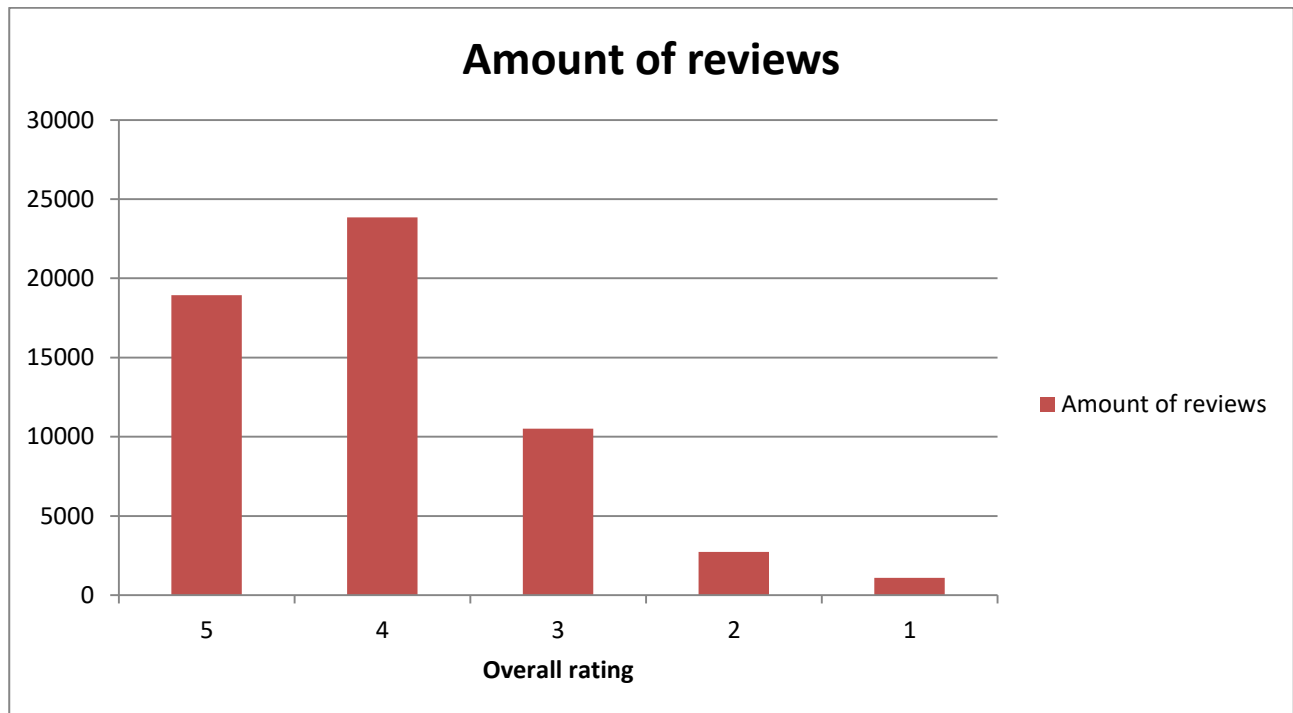


Figure 23: Amount of reviews in each rating category

On the other hand, some differences can be found in the way how males and females give reviews as the next graph suggests. While male reviewers have more dispersion in terms of overall ratings, females tend to be more generous in relation to giving 5-star overall ratings. The difference comes from the fact that males have the tendency of rating hotels between 3 and 4 around 60% of the time, which is 6% more to females. In other words, males are the more critical reviewer group as their average overall rating average (3.93) is more than one tenth worse of their counterparts' respective mean (4.05). This alternatively would suggest that males tend to review hotels more often when left feeling more or less unsatisfied.

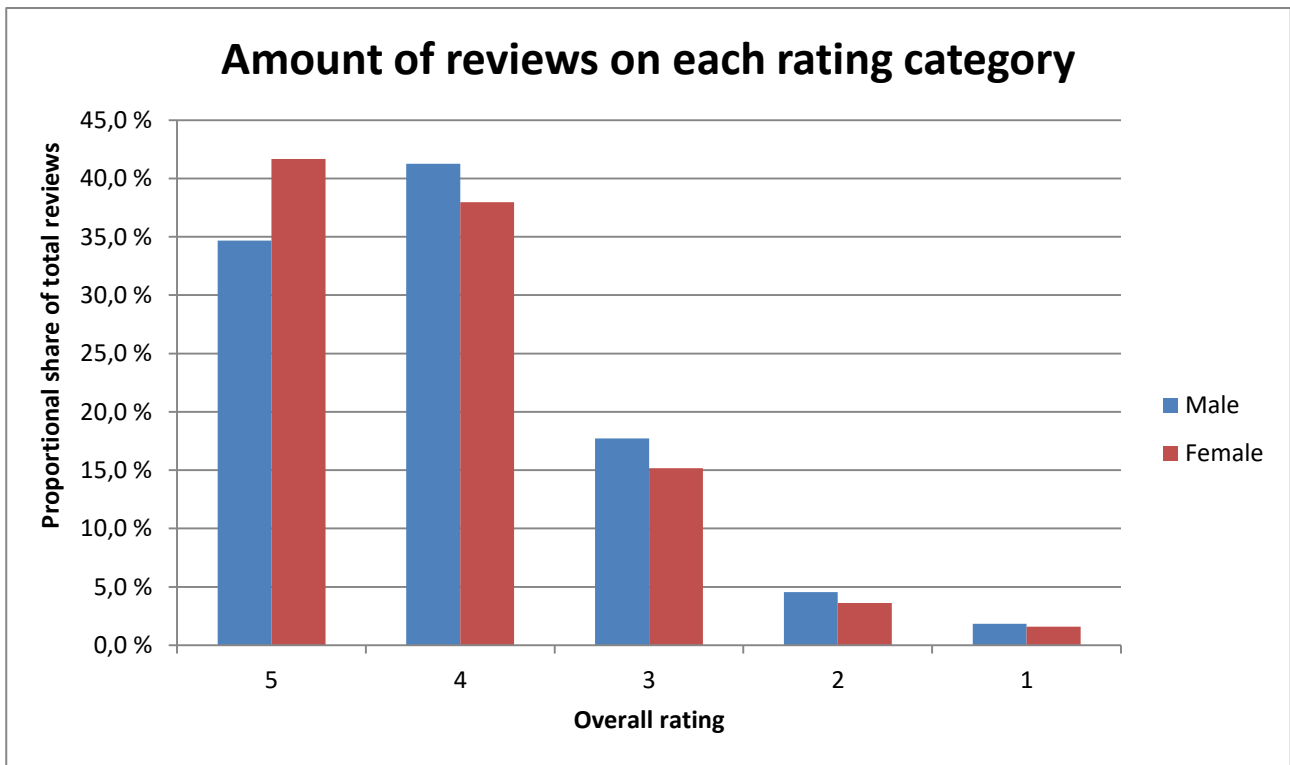


Figure 24: Amount of reviews between genders in each rating category

In addition, males contribute more on average than females to TripAdvisor. This accounts for all kind of actions such as review, rating, video, picture or forum post on the reviewing site. For males the average contribution value is 134, whereas females contribute 114 times on average. More importantly when it comes to reviewing hotels, males manage 25 and females 18 reviews on average. These numbers are actually quite high, and it further suggests that majority of reviewers are active members on the TripAdvisor community. Below can be seen a list of different contribution methods, which are awarded with TripCollective points on Tripadvisor (<https://www.tripadvisor.com/TripCollectiveFAQ>):









	Review	100 points
	Photo	30 points
	Video	30 points
	Forum Post	20 points
	Rating	5 points
	Traveler Article Creation	100 points
	Traveler Article Edits	5 points
	Helpful Vote	1 point

Figure 25: Different contribution methods on TripAdvisor

It also makes sense to take a closer look at how age affects reviewers' proneness to contribute and review hotels on TripAdvisor. Interestingly, the data analysis uncovered that average amounts of both contributions and hotel reviews increase steadily along with age. This means that essentially middle-age to older people are the main contributors and most significant groups in terms of hotel reviews.

However, these age groups are the most critical reviewers since 34-49 year-olds have overall rating average of 3.95, which is 0.27 points inferior to 18-24 aged reviewers. For 50-64 year-old people this metric is just a bit better with 3.98 on average. In hotels' perspective this poses an important observation – how to make sure that the most significant reviewer groups and contributors are co-creators of company value, not the other way around.

The graph below includes also amount of cities visited, which gives an idea of the ratio between reviews and travel instances. Only around one out of five times travelers are completing reviews of their accommodation experiences in all age categories assuming that travelers are staying in hotels while visiting new places. Conversely, travelers are clearly more willing to contribute in different ways than just by reviewing, which again indicates that hotels should encourage more hotel guests to share their experiences.

On one side, reviews are relatively efficient way for hotels to market themselves through word-of-mouth, and thus it would be beneficial for the hotel management to participate as many customers in the review-process as possible.

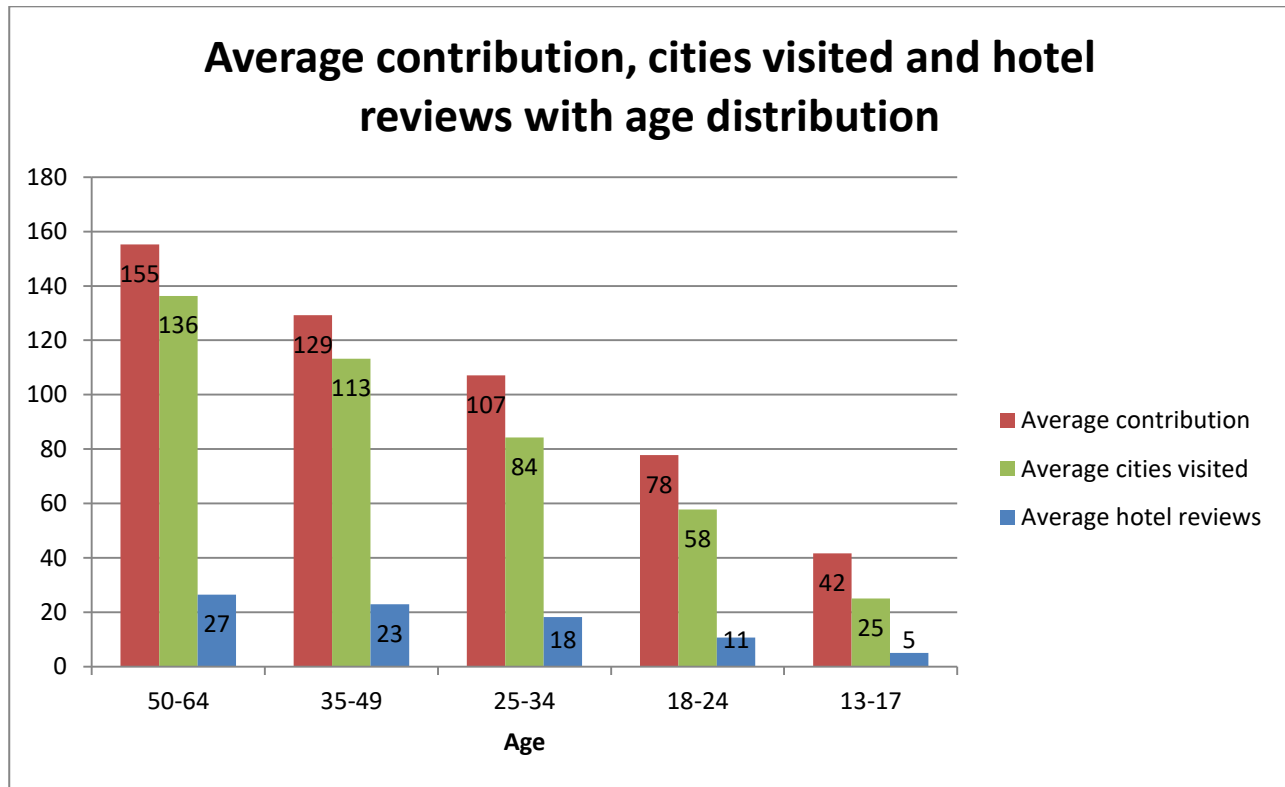


Figure 26: Average contribution, cities visited and hotel reviews with age distribution

4.4 Management of customer reviews – hotels' perspective

Which kind of reviews hotels tend to reply?

According to the analysis of the data there doesn't seem to be any statistical difference between overall rating averages and whether or not hotels tend to reply customer reviews. This would only suggest that hotels do not have any preference to respond either good or bad reviews. In other words the rating more or less doesn't have influence on the matter as the averages for both answering and not answering to reviews are technically the same.

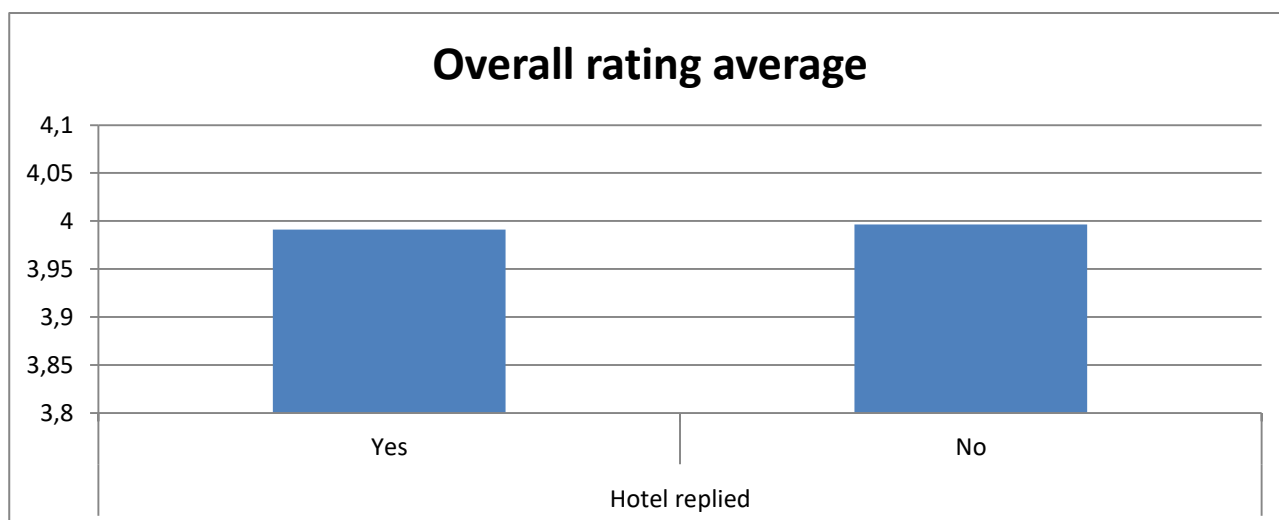


Figure 27: Hotel replies based on overall rating average

To get better understanding on the matter, each of the review categories are examined further to see whether there are any differences to hotel replies between good or bad reviews. The amount of replies is proportioned to the actual amount of reviews in each rating category, which gives proper insight of hotels' reputation management. This proportional value can be seen on graph as the percentage above each bar.

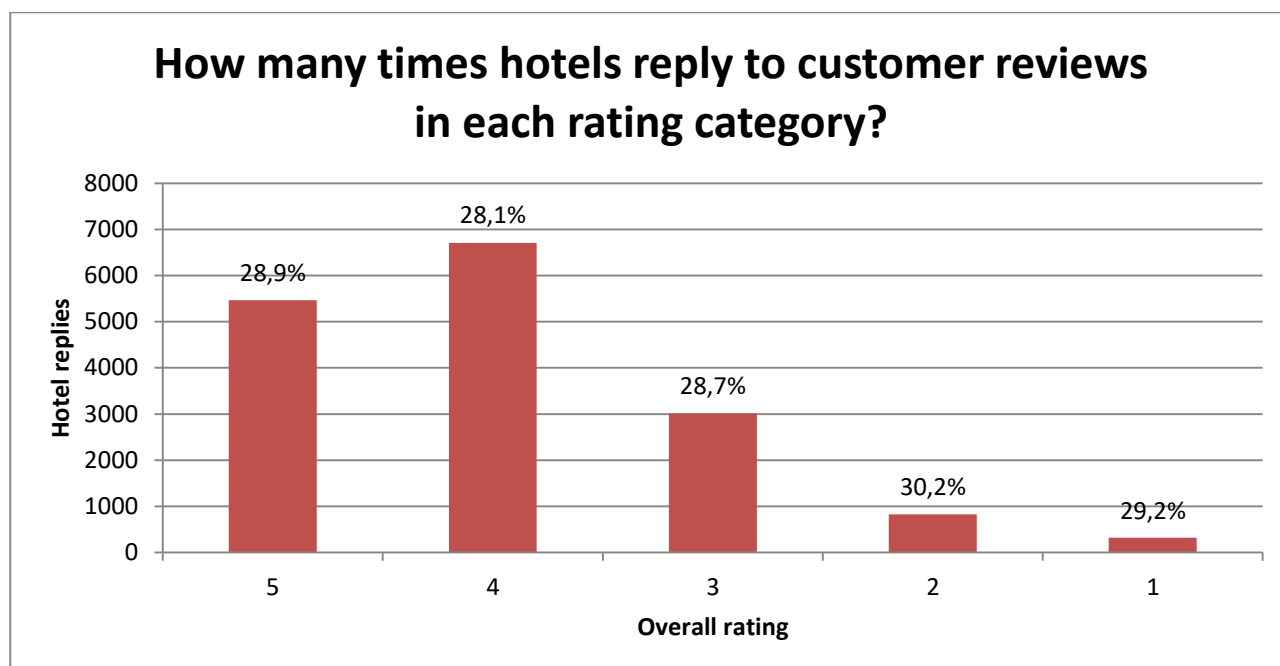


Figure 28: Distribution of hotel replies in each rating category

As these results suggest, there is hardly any difference between hotel replies in each rating category. Clearly the amount of good reviews overweight the bad ones, but the share of replies to unsatisfied

reviews is still fairly low. Also, given that the number of below-average reviews is fairly low, it wouldn't even require too many resources from most hotels.

As discussed in the literature part of the study, hotel management should actively follow eWOM and address situations and reviews where customers have felt unsatisfied. Thus, in light of these results hotels might have to participate more on review sites to take corrective action, especially when encountered with bad reviews. As research by Ye et al. (2011) among others suggests hotels should be improving their online review reputation as they have considerable influence on the number of bookings that are made online. Moreover, Papathanassis and Knolle (2011) have argued that negative reviews overweight positive ones, emphasizing possible repercussions when failing to address unsatisfied customer feedback.

Below chart portrays the nationalities of reviews, which hotels tend reply the most. The percentages are based on the proportional share of hotel replies and total review amount of each nationality. Not surprisingly, Finnish reviews are being answered more than any other nationality. This could be down to the language, or the notion that hotels prioritize replying to Finnish customers as they are the most significant reviewer group. Whatever the reason, domestic tourists are clearly favored over foreign tourists in terms of hotel replies.

Even though Russian tourists are prone to give best reviews in all rating categories, only around 20% of their reviews are being replied back by the hotels. This is for example almost half the amount relative to Finnish reviews.

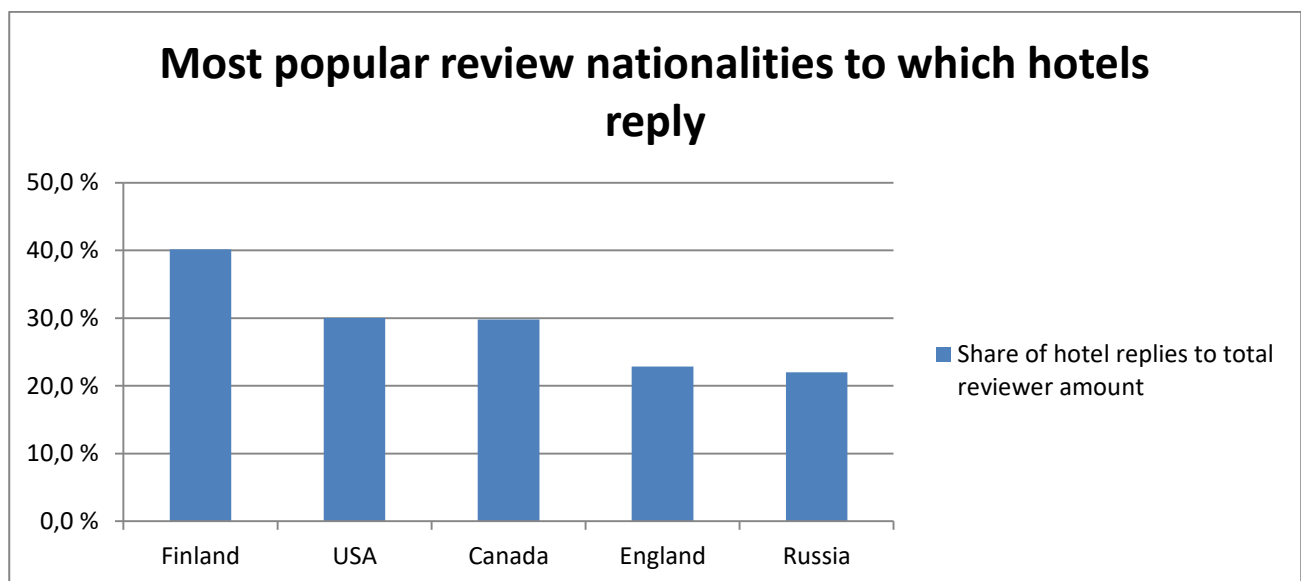


Figure 29: Most hotel replies by nationality

When comparing average to great with poor overall ratings by country and how hotels reply to them (table below), we can see that hotels reply more often to poor reviews rather than average or great ones in the case of English-speaking hotel guests. On the other hand, Finnish and Russian reviews are being replied more when overall rating is three or above, meaning that hotels do prefer addressing positive feedback for the two most important customer segments.

Thus, the table highlights the difference of hotel replies especially between foreign reviews and Finnish reviews. It also further emphasizes the distribution of replies and whether hotels reply more to positive and negative reviews. The percentages represent proportional amount of replies between these two categories. For instance 41% of Finnish reviews that have 3 or above overall rating are being replied by hotels, whereas the percentage for equivalent Russian reviews is only 22%. In other words Finnish reviews are being replied twice as much than Russian reviews when rating is 3 or higher.

Overall rating	Hotel replies/total reviews by country				
	Finland	USA	Canada	England	Russia
3 or above (average-great)	41 %	30 %	30 %	23 %	22 %
below 3 (poor)	34 %	34 %	33 %	26 %	18 %

Table 7: Hotel replies by nationality and overall rating

It would make sense for hotels to prioritize addressing poor reviews over good ones, since they can affect negatively to the trust and perception of the company. The next chart offers support to this statement as it portrays how helpful reviewers consider their peers' reviews in each rating category when hotels either reply or don't reply to the given reviews.

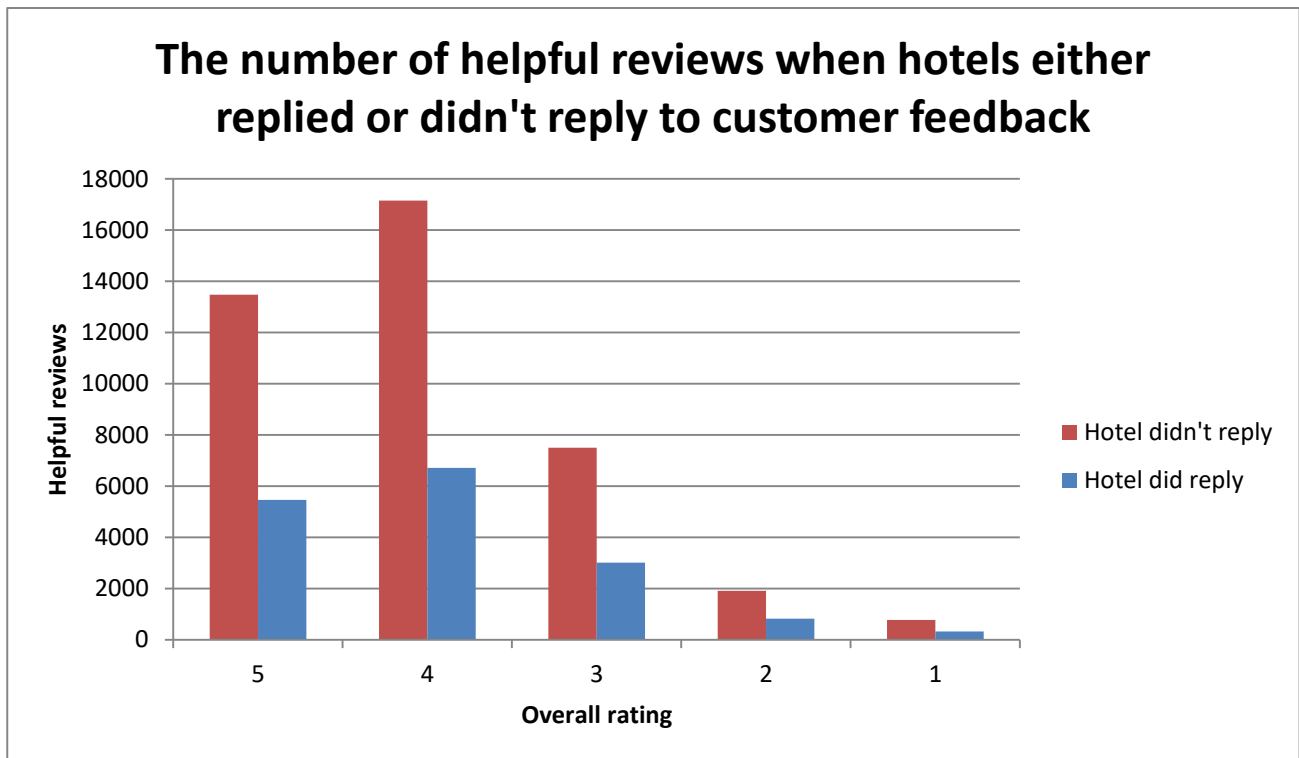


Figure 30: Hotel replies' effect on review exposure

Actually, Tsao et al. (2015) argues that reviews with conformity and increased exposure strengthens the impact of that particular opinion, which in turn influences booking intentions of other customers. This essentially means that reviews with more exposure are more likely to affect customer behavior. In relation to this conception, the chart above demonstrates the effects of hotel replies to review exposure.

It clearly shows that hotels can mitigate risks by intervening as exposure drops more than 50% in terms of helpfulness. This verifies the importance of addressing negative reviews as their exposure to other customers can be managed by hotels. In regards to helpful reviews, TripAdvisor has created this mechanism to highlight certain reviews, linking it to the concept of review exposure by Tsao et al. (2015).

This is a clear indication that hotels should focus more on managing their reputation, especially when being encountered with so called “bad publicity”. In the eyes of the customers, reviews that originally had a poor review can thus be dismissed with the corrective actions of hotels. Usually there is an appropriate reason for poor review, but even a small gesture from a hotel such as an apology or acknowledgement of failure could smoothen out the potential loss of reputation.

5 DISCUSSION

This study contributed to the existing research of hotel customer preferences and the management on customer reviews in many ways. For one, it explored the highly topical phenomenon of customer reviews and pointed out tourist profiles and the most important nationalities that review hotels in Finland. There has not been a similar study that examines hotel customers in these settings, so the findings are completely novel.

Nevertheless, the demographical analysis of reviewers revealed quite unsurprising results as far as nationalities go. Along with last year's official data about the most popular tourists in Finland (Statistic Finland, 2016), the analysis showed that almost all of the top visiting nationalities tend to also be the most active reviewers of hotels. There were couple of exceptions as Chinese and Estonians did not occur as much in the review data. Reasons for this could be that especially in China there are many competing review sites and the adoption of TripAdvisor could be lesser.

The gender distribution of reviews revealed that males review hotels significantly more than females, which was surprising given that there should not be as great differences in the amount of visits between genders. Another interesting finding was that reviewing tends increase with age according to the data. This could be though accounted to the possibility that traveling to foreign countries increases as people get older, and thus reviewing of hotels does too. The most prominent reviewers are though middle-aged people (35-49 year-olds) by claiming almost half of the total reviews.

In terms of the types of travelers that review hotels, couples and business people are most frequent groups for almost every nationality. Together these kind of travelers account for almost 60% of all reviews that highlights the importance of satisfying the needs and expectations of such hotel guests especially. Based on this information, there are couple of archetypes that could be expected to review hotels and thus assess the satisfaction of their stay more closely than others: couples that are over 25 years-old and business travelers, notably men.

These reviewer profiles and nationalities were then compared with each other to see whether there are significant differences in terms of preferences and rating behavior. This brings another contribution to the existing research in understanding different types of tourists. Not only was the study able to examine the overall satisfaction of hotel guests, but also delve into more specific features that influence the contentment of customers as a whole. Such factors were for instance value, location and room characteristics.

In fact, overall ratings already demonstrated clear differences between nationalities and how they perceived hotels. While the average rating was quite high (3,99 score out of 5), some nationalities clearly assessed hotels better than others. For instance Russians outperformed distinctly every other nationality with overall rating average of 4,27. Thus it doesn't come as a surprise that Russia is also the most significant nationality in terms of nights spent in hotels, according to last data from last year (StatisticsFinland, 2016).

Also, all native English-speaking nationalities were at the top of overall rating averages. Interestingly, many studies (Schuckert et al., 2015; Torres et al., 2014; Choi & Chu, 2000) have shown that language and cultural are factors that affect the rating behavior of hotel guests. Accordingly, these findings strengthen the implications of Schuckert et al. (2015) that guests speaking English as their native language tend to give higher ratings than those nationalities with another mother language.

On the other hand the most demanding reviewers were Finnish, followed by Swedish hotel guests in the overall rating category. One explanation for the rather mediocre ratings could be that reviewing becomes more critical when dealing with familiar surroundings as both reviewer populations are among the top regarding nights spent in hotels. In other words, the expectations could increase when the standard of hotels is experienced more frequently. Another reason could be the differing quality perceptions that result in worse ratings.

The cross-comparisons in the form of ANOVA tests indicated though different aspects of the rating behavior between the reviewer nationalities. There were definitely some interesting findings that hotel management could utilize in their marketing and customer relationship efforts. For instance Finnish and Swedish reviewers do have similar rating habits and thus probably expectations as well, which leads to thinking that these nationalities should be segmented together. Overall the ANOVA test confirms that nationalities with cultural and geographical similarities usually tend to review hotels in the same manner.

Apart from nationalities, the study also examined the rating behavior between genders. As we learned from the demographic analysis, males reviewed hotels more than females. However, the overall ratings tend to be consistently better for females, which indicate that males are more critical in reviewing hotels. This distinction between genders shows that hotels might be able get better ratings when females assess their performance. This raises an interesting question whether or not hotels should encourage women instead of men to evaluate their stays when dealing with couples or families for instance.

Furthermore, the study attempted to explain the differences between males' and females' rating habits. There was a particularly interesting correlation with gender inequality and the rating habits between genders; in general, countries that are considered more equal in terms of gender equality (Gender Inequality Index, 2014) tend to also have fewer differences between males' and females' overall ratings. On the other hand, inequality seems to increase the chances that there is a greater distinction of overall rating scores between male and female reviewers. Thus, it could be that gender equality shapes the way people perceive value and express their satisfaction. Obviously, it would require more studies and research in order to claim the validity of such statement. Nevertheless, the links between rating behavior and gender equality offer at least a new avenue for research purposes and could explain the differences between gender ratings.

When it comes to statistical dispersion around the overall rating averages for both males and females, the analysis shows quite clearly that especially Russian and British reviewers are very consistent and homogenous reviewers for both gender categories. Overall, the spread between the averages is quite normal, with a few of exceptions for the female reviewers.

Quite interestingly, females that come from more equal countries tend to have more deviation in overall ratings than females from those countries that rank higher in the Gender Inequality Index (2014). Most clearly this is shown for Dutch and Swiss female reviewers that both have high equality ranking and greatest differences around the overall average in terms of standard deviation and range. This could mean that females from equal countries feel more free to express their emotions and thoughts when it comes to reviewing of hotels, and thus resulting in greater variability in overall ratings.

This is of course not directly in line with the previous assumption that reviewers from equal countries have similar rating habits. On the other hand what could actually make sense based on these findings is to assume that more equal countries tend to have similar value preferences between genders in general, but especially females from these countries are more prone to display satisfaction or discontent when reviewing hotels. In other words, females that come from more equal surroundings could be harder to predict in terms of their expectations.

With respect to other hotel attributes and their ratings, there were many similarities to previous findings and assumptions. Above all, Russian hotel guests topped every rating category quite unsurprisingly while all of the native English speaking nationalities ranked also above the averages among each metric. Other than that the analysis revealed some interesting propositions to national preferences.

More closely, value was considered as the worst aspect of hotels with significantly lowest averages. This leads to an assumption that the price-quality ratio of Finnish hotels in general is somewhat out of balance. For customers that don't visit Finland that often, this might not be such a big issue, but it could affect the more regular travelers visiting Finland. For Asian travelers value is considered the most important attribute influencing satisfaction of hotels (Choi & Chu, 2000), and in fact Japanese reviewers are producing worst ratings in the value category. Given that Asian travelers are one of the most important tourist groups to Finland (Statistics Finland, 2016), it would be beneficial to find ways to improve the value proposition delivered to the customers and especially Asian guests.

In contrast, the service rating had relatively higher averages among all nationalities, which essentially expresses the good performance of hotel staff. However, all of the European countries (except England) rank below the overall average of service rating. This could mean that Europeans in general have higher expectancy of service levels in comparison to nationalities from different continents.

The remaining hotel attributes ("rooms", "location", "cleanliness" and "sleep quality") and their respective ratings were quite balanced between nationalities and on a fairly good level in terms of satisfaction. Room rating averages, however, could be better when comparing with the other hotel attributes – it is a metric along with value rating that doesn't reach the average score of four. Significantly, every other attribute has higher than four average rating, clearly showing the aspects that require most improvement from the hotels. As such, hotels should also invest in the room design in order to improve the satisfaction of hotel guests.

The purpose of this study was also to share insight of the review tendencies of travelers. By analyzing the review amounts in terms of satisfaction, it could be concluded that positive reviews significantly overweight the bad ones. When comparing males and females together, the data showed clear differences in the rating behavior – females are more likely to give excellent feedback while males tend to be more conservative when it comes to ratings.

Furthermore, males have the tendency of being much more active contributors in the TripAdvisor community, which suggests that hotels should encourage more females to share their experiences. This could improve the rating averages of hotels as females in general tend to give superior evaluations. Moreover, these findings confirm the earlier discussion of the gender differences in terms of rating averages.

Age turn out to be also a factor influencing the willingness to review hotels. In addition to previous assumptions, review and overall contribution amounts increase steadily with age. Reason for this occurrence could be that especially over 50 year-olds have more time to travel and assess the performance of hotels, which is also supported by the data. However, it also seems that the older reviewers are more critical as their overall rating averages are significantly worse than 18-24 year-olds for instance. Thus, hotels could benefit more from younger reviewers by encouraging more participation from them.

As the supporting literature and research has previously suggested, hotels need to acknowledge the importance of online reviews and find strategies to manage them efficiently. Thus, the study was also keen to find out how hotels are currently dealing with online reviews and what could be done to further improve the reputation on the forums such as TripAdvisor.

According to the data hotels do not seem to have any preference in regards to the quality of reviews. Basically, both positive and negative reviews are being replied in similar volumes. However, as discussed in the literature review, negative eWOM usually gains more attraction than positive one and thus can influence the conceptions of hotel more. This would suggest that hotel management need to commit more resources to deal with negative reviews since to only third of them were reacted in some way.

There were also significant differences as to which kinds of reviews were replied by the hotels. Not so surprisingly, Finnish reviews had most replies with 40% share of the total reviews. On the other hand foreign reviews were replied significantly less, which indicates that hotels prefer reacting to Finnish reviews much more. Since tourism from foreign countries is essential for many Finnish hotels, it would definitely make sense to increase the response ratio of foreign reviews, especially the negative ones.

Actually, the data further shows that Finnish and Russian reviews that have below three overall rating are replied less than the reviews with better overall rating. Given that these reviewer nationalities make up for 42% of all reviews in Finland, there seems to be great mismanagement of response strategies for hotels. On the contrary, hotels should focus significantly more on negative feedback in order to successfully manage the reputation on user-generated forums.

The analysis also shows that the review exposure on TripAdvisor seems to drop drastically when hotels react to customer feedback. By review exposure is meant the amount of reviewers that have voted particular review as helpful. TripAdvisor has created this feature to highlight reviews that are

seen more important than others. Thus, hotels can mitigate the affect that negative reviews otherwise might have by replying to them in respectful manner proposed by many researchers. This would suggest again that hotel management intervention is crucial to negative eWOM.

6 CONCLUSIONS

6.1 Research summary

The purpose of this study was to understand tourists in Finland by analyzing online customer reviews of hotels, and further give tools for hospitality management to utilize this information. By grouping hotel guest based on their nationality and other demographic information, it was possible to draw conclusions of the preferences and satisfaction levels of different hotel guests.

The analysis measured several different hotel attributes including “overall rating”, “value rating”, “rooms rating”, “location rating”, “cleanliness rating”, “service rating” and “sleep quality rating”. While each of these metrics presented somewhat different results among the nationalities, certain conclusions could be drawn from the data.

Thus, the results show that Finland, Sweden and Germany have the most critical reviewers of all nationalities in terms of overall rating. However, all of these nationalities are among the most important customer segments (along with Russians) for hotels in terms of visitor volumes. Moreover, there is a slight change for the worse of nights spent in hotels for Swedish and German tourists according to last years’ statistics. Thus it can be argued that Finnish hotels need to improve their performance and satisfaction of its most dissatisfied customers.

On the other hand, the most satisfied tourists were from Russia and English native-speaking (England, USA, Australia, Canada) countries. Impressively, they excelled in all rating categories leaving other nationalities behind by a clear distinction. In terms of Finnish hotel review volumes, these nationalities were also among the most active contributors on TripAdvisor. Conversely, these reviewer nationalities oftentimes act as co-creators of value for Finnish hotels. In addition, they could be further leveraged to improve reputation and achieve other business goals.

Apart from overall ratings, some additional findings were made in regards to other metrics. Most interestingly, Japanese reviewers had many ratings below average even though their overall rating was among the highest out of all nationalities. This was showing especially on value and service rating categories, indicating their discontent on the price-quality ratio and service performance of

hotels. Then, Finnish reviewers had fairly decent average ratings on most metrics, but hotel rooms appear to be biggest issue that might explain otherwise such poor overall rating.

ANOVA test was also carried out to see statistical differences among different nationalities and their rating behavior. For the purpose of the study it made sense to look for nationalities with similarities as they could be segmented accordingly. In general, it could be deduced that countries with cultural and geographical ties had similar rating habits and preferences.

To get broader conception of the tourists, the study looked into gender differences in relation to overall rating averages. While males were more active reviewers for almost every country, females tended to give distinctly higher ratings on average for Finnish hotels. There was also a visible correlation between gender equality and the overall rating averages between genders; the more equal country, the closer respective averages of males and females. In addition, females from more equal countries had more variation in the overall ratings, probably showing that preferences are being shaped by many different things in an open society.

In terms of hotel guests' tendency to review hotels, the results point out that positive feedback rather than negative is much more likely to occur. When comparing the differences between genders, it was discovered that females actually have greater probability of giving the highest score to hotels. Males, on the other hand, tend to give poorer ratings and thus be more demanding.

Speaking of criticality, age seems to also influence reviewers' assessment on hotel performance. While younger generation in general has high overall rating average, it drops significantly as reviewers reach middle-age. What's more, older age-groups are most significant in terms of review volumes and other contribution methods on TripAdvisor. Actually, there is a steady increase in overall contribution and travel instances as reviewer ages, making them one of the most important segments for hotels.

Finally, the study intended to find ways for hotels to manage online reviews properly. Firstly, the analysis examined how hotels are currently addressing these customer reviews. At first glance, there was no clear significance on the quality of the review and whether hotels reply to them. That is, hotels do not prioritize in replying to negative reviews as they should in order to protect their external image and reputation.

On the other hand, Finnish hotels do prefer to reply in their native language according to the data as Finnish reviews get proportionally clearly more replies than foreign ones. The analysis also shows the significance of hotel intervention to review exposure, which influences the booking intentions of

prospective customers. Thus, hotels need to acknowledge the importance of online reviews and their strategic management on different levels depending on corporate resources and goals.

6.2 Theoretical contributions

This study offers several theoretical contributions to the existing research. It makes a case for understanding hotel customers through cultural and other demographic factors, and further demonstrates the differences between several nationalities' perceptions. On one hand, the superiority of rating averages among English-speaking nationalities discovered in the study is well aligned with the findings of Schuckert et al. (2015).

Also, clear links with the cultural dimensions theory (Hofstede, 2001) and study findings were made. In particular, the ANOVA test confirmed similarities with certain nationalities' rating behavior such as the Nordic countries (Finland, Sweden and Norway) and English-speaking countries (United States, Australia, Canada, England) that is supported by Hofstede's model. In fact the cultural dimensions of these nationality groupings are very much alike with each other, supporting the argument that both cultural and geographical ties between countries inflict similar ratings.

Additionally, Japanese reviewers exhibited very different rating pattern than other nationalities; their overall satisfaction was very conflicting especially with value, service and sleep quality categories. For other reviewer nationalities, overall rating to a large extent complied with other rating variables. Arguably, this finding could be attributed to differences in cultural emphasis as Japan was the only country analyzed from Asia, which according to Hofstede's model (2001) differs significantly from Western countries. Similar contrast between the rating behavior of Asian and Western countries were also covered in the literature part of the study, which consolidates this argument and thus offers further insight of Japanese reviewers in particular.

The aforementioned findings bring a significant contribution to the research of cross-cultural rating behavior: both cultural similarity and difference affect the rating behavior of countries, but lead to differing outcomes. On one hand similar cultures tend to rate hotels in the same way and on the other cultures differing from each other are likely to demonstrate varying rating patterns. While effects of national differences to the rating behavior have been covered in earlier literature, similarities have not been studied to the same extent. In addition, this study is among the first ones to compare several cultures and their effect on hotel rating metrics.

In terms of other rating variables, some links to previous studies could be made. Especially the findings of Liu et al. (2015) are mirrored in this study; both “value” and “rooms” variables have the worst-rated averages out of all metrics, suggesting that by improving these attributes the overall satisfaction could improve.

When it comes to other demographic factors, it was discovered that there are clear gender differences between male- and female rating behavior. In accordance with other research (Ariffin & Maghzi, 2012), this study also found that males are likely to be more critical and demanding compared to females. Another finding regarding gender differences was to connect it with gender equality (Gender Inequality Index, 2014); there was quite clear correlation between equality of a country and its respective separation between gender averages. Thus, these findings contribute to the understanding of rating differences between genders with also taking into account the cultural factors.

Furthermore, this study develops the understanding of online review management and strengthens the importance of addressing negative word-of-mouth, which is consistently agreed in the literature (Sparks et al., 2016; Phillips et al., 2015; Tsao et al., 2015; Levy et al., 2013; Van Noort & Willemsen, 2012). Particularly, it connects the usefulness of hotel responses to decreased review exposure, which Tsao et al. (2015) argued to have impact on customer behavior. The findings of the analysis also suggest that hotels do not have strategic procedures to address eWOM that is connected to previous research conclusions.

6.3 Practical implications

In addition, the findings of this study offer several practical applications for hotel management, not only in Finland but also in countries that welcome similar tourists. For one, it allows Finnish hotel managers to pick up on the different kinds of customer segments that assess their performance constantly. Moreover, it sheds light on the satisfaction of customers in a national scale, and essentially reveals a lot of useful information about hotel guests. Accordingly, this knowledge can be further used for marketing and operational purposes to improve hotel’s overall performance.

A framework is also provided for hotel administration to manage online reviews. It essentially provides hotels with flexibility in terms of implementation and scope. Hotels that struggle with resources should at least focus on addressing negative eWOM, but to gain more benefits from online reviews hotels should apply more long-term and strategic approach. The latter requires more integrated involvement from hotels, connecting different departments and leveraging online reviews

to improve business processes. The benefits of this approach could include improved customer insight and relations, increased brand awareness and innovation among other things.

6.4 Limitations of the study

This study makes significant contribution in understanding the role of online reviews and their vast possibilities for hotel management. Due to the large sample of consumer-generated reviews, the study was able to draw several causal conclusions from the data. Thus, the findings offer both academic and practical suggestions. Academically, the study advances the understanding of tourists and their preferences while also examining the organizational perspective of online review management. Practically, hotel management is provided with deployable model that connects much of the academic research on online reviews.

As with all research, there are also some limitations to the study. Firstly, since the findings are heavily based on consumer-generated content, there is always possibility that some of the data is flawed. Falsified reviews have become an issue in online environments and generally the authenticity of such feedback is pretty challenging to identify. Secondly, some of the information was lacking on the reviews, which in turn could have altered the findings of the analysis. Thirdly, the consumer preferences might be country-specific, which would imply that the findings are only limited to Finland.

6.5 Suggestions for further research

There are many interesting areas of future research when it comes to analyzing user-generated reviews. For one, conducting a similar study in another country could provide further insight to whether cultural changes shape the expectations of consumers. Also, utilizing text mining tools to examine written review information could offer deeper understanding of both customer preferences and hotel responses. Moreover, research on online review utilization is still lagging behind, meaning that more studies need to be directed towards finding out the best practices of hotel reputation management.

More closely, effects on different response methods could provide fruitful avenue for research purposes. While the study argues that hotels can leverage its reviewers to innovate and improve processes, it would also make sense to investigate the steps that need to be made to build authentic relationships online and encourage consumers to share their ideas.

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